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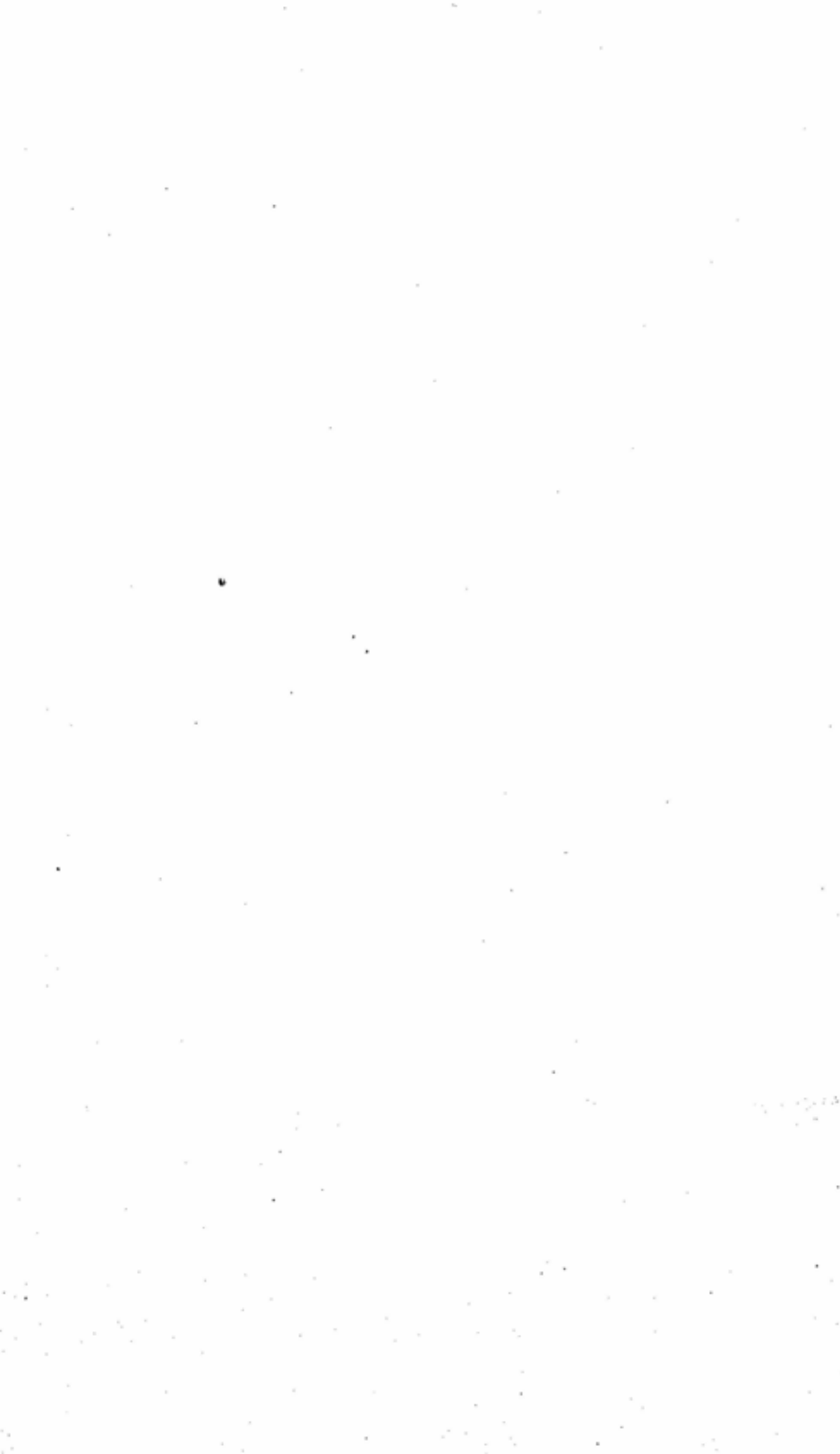
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MAN in INDIA.

A Quarterly Record of Anthropological Science with special Reference to India.

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I. THE PRESENT POSITION OF ANTHROPOLOGICAL RESEARCH IN INDIA.*

By

RAO SAHIB C. HAYAVADANA, B.A., B.L.

During the past 35 years much valuable work has been done in this country, on both the physical and cultural sides of Anthropology. Many have contributed towards the accumulation of our knowledge in these domains. I need hardly refer to the labours of patient investigators like, Risley, Thurston, Rangachari, Hutton, Mills, Hodgson, Bray, Roy, Nanjundaiya, Russel, Hira Lal, Iyer and others who have laboured in the field. So far as India is concerned, in the field of synthesis, on the physical side, Risley might be said to hold the ground, especially with European students of Anthropology. But it is undoubted that both his theory and mode of approach have received severe blows from Indian and European ethnologists alike, while the Mohenjō-Dāro discoveries have exploded his conclusions almost to

* Presidential Address to the *Ethnology and Folklore* section at the Session of the *All-India Oriental Conference*, held at Mysore on the 31st December 1935.

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the last degree. Recent writers of note in the sociological field have done much to advance research on the cultural side. In the Pre-historic field, Mr. Panchanan Mitra has produced a suggestive work. On the descriptive side, we have had a large accretion to our ranks. Besides those who are better known, and whom I have already mentioned, there are a number of younger students, whose earnestness in the field deserves a warm word of commendation. Mr. Karanadikar's study of *Hindu Exogamy* is a notable contribution to the study of an obscure subject, while Dr. Ghurye's work on *CASTE AND RACE IN INDIA* is a real addition to the literature on that great topic of sociological interest. Sir Charles Bell's fine work on the *PEOPLE OF TIBET* will rank perhaps as the first systematic description we have from a trained observer of the customs and habits of that really little-known people. In the field of Physical Anthropology, Dr. Guha of the Indian Zoological Survey has rendered valuable service. The work of Dr. J. H. Hutton, deserves special mention. He has given a real impetus to the study of the tribes in North-Eastern India. His studies of the *ANGAMI NAGAS* and *SEMA NAGAS* and other tribes living in the neighbourhood of Assam are typical of the excellent work he has done. Lt. Col. Gurdon's *KHASIS*, the Rev. Sidney Endle's *KACHARIS*, Mr. Hodson's *NAGA TRIBES OF MANIPUR* and Col. Shakespear's the "*LUSHAI KUKI CLANS*" have added much to our knowledge of the tribes of this region. The latest Report of the Census of

India is another valuable addition to our knowledge of the Ethnology of India. In Folklore, we have workers of note, but it still needs greater attention. The inter-hemispheric diffusion of Indian Folk-tales has to be worked out in far greater detail, if we are to realise aright the extent to which India has contributed towards world culture early in its life. Apart from the historical value attaching to such diffusion, the scientific importance of the study of folklore in India cannot be overestimated.

One of these prominent workers has just passed away from our midst. I refer to the late Dr. Edgar Thurston, who more than anybody else did much to popularise the study of Ethnology in India many years ago. To a well-trained mind, he brought to bear an assiduity of application that was truly marvellous. Amidst his varied and exacting departmental duties, he found time to take a personal interest in the study of man in the South of India. He travelled widely, inquired patiently, collected carefully, wrote incessantly during the whole time he was in charge of the Madras Museum. When the Indian Ethnographic Survey was organised in 1902, he was appointed its Director in Southern India, in which was included the States of Mysore, Travancore and Cochin, for anthropometrical purposes. He treated this area as an ethnological block and thought that the physical data should be worked out by one hand to avoid undue variations in the results, I happened to travel

with him throughout this (Mysore) State and can say he made a fine companion and a splendid chief. His keen sense of humour saved him from many a pitfall. He believed in hard work and expected nothing but the best that one could give. His labours finally took shape in the seven volumes of the encyclopaedic work known as the *Castes and Tribes of Southern India*. His death, though at the advanced age of 80 years, is a great loss to Indian Ethnology, and as a pioneer, his valuable work requires to be remembered.

Advance in Ethnological studies.

Within the past thirty years, a good deal has been done to advance the study of Ethnology in India. The study of the races that make up India, has been pursued with great vigour, though I must say that in recent years the interest of the Government has somewhat lagged behind. With the completion of the survey inaugurated in 1901, the Government of India and with them the State Governments have shown little inclination to find the funds required to give the next push required for furthering research in our field of study. The survey took some eight years and as one result of it, we have had Provincial and State volumes of Ethnographic studies almost in every part of India. In our own State, you will be glad to hear that Diwan Bahadur L. K. Anantha Krishna Aiyer has just issued the only volume that had been left over in the Mysore series. The volume of these different series lies not so much in the matter they enshrine, valu-

able though it be, but in the extended vision they have given to the field-worker of the work that yet lies before him. The next line of advance must be to intensify study in carefully chosen areas of selected tribes, particularly of the more primitive type. I may say the notes so far collected in most of the volumes of the different series of *Castes and Tribes* have to be further verified and in a great many cases even completely re-written from personal inquiries made by competent scholars or well-trained field associates. On the physical side, the anthropometrical parts call for further attention. Larger data are required, if we are to arrive at anything like satisfactory deductions. On the purely social side, I should like to see an impetus given to the study, on the one hand, of social organisation and religion, and on the other, of social institutions and beliefs. The economics, the law, the ethics and the aesthetic ideas that influence a group or community are other important topics for study, if the social side is to be rightly appreciated. The aspects mentioned can best be studied only if the people and the Government are induced to take a closer interest in the practical importance of the study of man, his environment and what he makes of it or it makes of him. Cultural ideas spread, it is true, imperceptibly, but the racial instinct is there and with it environment plays a great part. The scientific study of man, of Anthropology in its most general aspects and in its several sub-divisions, requires a scheme, an

organisation, and a set of trained workers who should be devoted to their labours. One of the duties of this section should be, I think, to adumbrate a suitable scheme of work, set an organisation and make it responsible for its being put into operation, and get together a band of students who would be trained for such a work. The Universities in India may be expected to help in this connection, while the Government of India and the Indian Provincial and State Governments may be requested to assist on a basis that may not prove too onerous for them.

The Race Problem to-day.

The Government to-day is confronted by problems in which race, nationality and community are largely concerned. If anything can help to solve what seem the larger issues of politics today—and they are those connected with nationality and race, caste and creed, and community and communalism—it is the further study of man the world over. The West, amidst the many blessings it has conferred, has unfortunately to itself and to the wider world it has influenced and is influencing to-day, treated its own culture as an ultimate fact. The student of man, as the anthropologist is, is bound to take a naturally different view. Judging from the biological point of view, he takes a more universal view of human history. To him civilisation has a relative, not an absolute value. His view is that it is the duty of man to study man in his various environmental spheres and leave it, as Prof.

The Present Position of Anthropology in India. 7

Marett well puts it, to the future to adjust the focus better, to decivilize history, as it were, in the sense of humanizing it more impartially and completely. To illustrate the proposition from a modern example, can we say, with what is happening in Abyssinia, that Italy is more "civilized" than Ethiopia, though it may claim it has no slaves within its own territories? Verily, Verily, even Mussolini will have to admit that there is even to-day a "trace of savagery in the most civilized people". The degree of actual civilization attained by any group of people is as nothing compared to the de-humanization it might have undergone in the process, or the elemental weaknesses it might carry with it. Mussolini would perhaps better appreciate the so-called "savage" if he knew that racial temperaments vary and that the "savage" Negro may be more musical than the civilized "West". It would, perhaps, be news to him that this is really so according to the physiologists who have given attention to tempermental tests among the races of mankind.

The aid that Anthropological studies afford to the practical administrator are great and, apart from that aspect of the matter, there is no question whatever that they afford a basis of the liberation of mankind from the thralldom of ideas of "inferiority" and "superiority", which, in the racial sphere, have done and are doing such incalculable damage to the advance of humanity along right lines. Attaching himself to no theory of ultimate value, the anthropologist, with the wealth of data

he collects and lays bare, points to how man has civilised, how he has dominated the world, how he is able to live longer than other evolved animals, how in his historical evolution through the ages, he has "advanced from a less to a more satisfying kind of experience"—thus enriching the meaning of life. If it were more generally appreciated that mankind, however it may differ to-day, according to its divisions and sub-divisions, has to be traced back to one species—the existing species *Homo Sapiens*—perhaps it would better appreciate the need for the cultivation of a common humanity. How many in a thousand know that the Turki and the Ainu are Caucasian and perhaps Alpine? How many know that the Dravidians of Southern India and Ceylon belong to the Mediterranean Race, which itself belongs to the White or Caucasian branch of the Hominidæ? How many, again, know that the Alpine race includes the European Alpine and the Asiatic Armenoid branches, to the former belonging the Swiss, the South Germans, the Slavs, the French, the North Italian, the Persian Tajiks and the mountaineers of the Pamirs, among whom a type prevails which, according to Seligman, tallies almost exactly with the Swiss representatives of the Alpine race, while the latter include those now inhabiting Armenia, the Levant, Mesopotamia and South Arabia? How many, again, realize that the Mediterranean Race includes the inhabitants of not only the Mediterranean peninsula and islands but also a part of Arabia and

Africa, north of the Sahara (including the Berbers), and crossing Sahara invades the land of the Negro? And finally how many know that the Japanese represent a large infusion of Ainu blood, itself belonging to the Caucasian, if not Alpine Race? The point to grasp and stress is that humanity would be saved if humanity were made to know how intermixed it is in its origins, how intermixed its claims and rights are and how intermixed are its duties and responsibilities towards itself.

Importance of Ethnological studies.

So much for the debt the student of man owes to his fellow-beings the world over. Nearer home an advance in the Ethnological studies in India itself would mean much for the dissemination of sounder ideas as to the true racial origins of the larger components of the population and how they are inter-connected. Such sounder ideas are today a crying need. Communalism in politics cannot be overcome except by the spreading of truer ideas as to common origins,—ideas which are not only scientific in character but also arrived at after patient investigation by dispassionate students, under conditions which negate pre-possessions and passions of every kind.

Anthropology and the Universities.

I must now pass on to another topic of importance. Is research work in Anthropology receiving the attention it should of our Universities? I am glad to say that the set-back that we had some years ago has now nearly disappeared. The

pendulum has swung to the right and there is a movement afoot to give better recognition to its value. There is no doubt that much remains to be done. India must take her place beside the other countries in the pursuit of scientific truth in this field as well. How many are there who have studied in this country the subject of the "descent of man", or the other one of the place of origin of man, which is still described as "somewhere in Asia"? How many have given any attention to the investigation of 'blood groups' about which a great deal was expected at one time by Anthropologists? As the result of research in the directions referred to, the idea of the "missing link", for instance, has been practically given up to-day. That is one result of the study by Anthropologists of what has been unearthed of Palæolithic Man in different parts of the world. It is now agreed that none of the early men so far discovered (Cromagnon &c.) stand in the direct line of ascent of modern man. The traditional idea of the "missing link" has thus disappeared. Human evolution, as we now understand it, is not, as Keith well puts it, "the simple procession of forms leading from ape to man, as we imagined it to be" in the Early Darwinian days. The true picture, according to him, is somewhat different. We have to conceive, he points out, "an ancient world in which the family of mankind was broken up into narrow groups or genera, each genus again divided into a number of species—much as we see in the monkey or ape

world today. Then out of the great welter of forms one species became the dominant form, and ultimately the sole surviving one—the species represented by the modern races of mankind". The study of "blood groups", to which the American Anthropologist L. H. Snyder has given such splendid attention, has resulted in certain very interesting deductions. Some thirty-five years ago it was discovered that there were definite substances in the serum of some bloods that would agglutinate or clump the cells of certain other bloods, and it was further shown that on this basis blood can be classified into groups—denominated under the Roman figures, I, II, III and IV with reference to the bodies theoretically causing agglutination. The chief anthropological interest of these groups lies in the varying percentages of each group in different peoples, for it has been found that different populations—not exactly "races" are characterized by different frequencies of the four groups. On this footing, the presence of high frequency in group I have been regarded as an indication of the degree of isolation of the people in whom it occurs. Very interesting studies among the North American Indians, Australians, the Melanesians of New Guinea and the Negroes of West Africa have been made. Incidentally, as the result of similar researches carried out among the Hungarian Gypsies, it has been found that there is a great similarity of their blood to that of the Hindus, amounting, as Dr. Seligman points out, "to practical identity" though Hungarian Gypsies left their Indian home-lands hundreds of years ago.

An Indian scholar of Anthropology.

Such are some of the results of research in these different fields of Anthropological study. I have drawn attention to them only to indicate the vast field that we have to cover and the varied sort of work that is being done outside India. We have to wake up to a sense of reality, if we mean to progress with the rest of the researchers in this most interesting branch of human knowledge. In this connection, it is our bounden duty to recall with gratitude the great lead that the Calcutta University under the guidance of Sir Austosh Mookerjee, has given to the study of Anthropology in Bengal. Madras is now engaged in organising a Department of its own and it is evidently arranging first to specialize in the study of Indian pre-historic races. Mysore has been in the field for some years now and its work is in the capable hands of Prof. Krishna. Bombay is keen on the cultural side, while the other Universities are yet to make a move in this connection. On the purely physical side, India must hold up its name. Anatomy enters so much into the study of Man that we should like to see trained Anatomists turning their attention to the study of this subject. The close connection there is between Anthropology and Geology, Bio'ogy, Pre-Historic Archæology, Physiology, Psychology and other sciences is seen when we begin to seriously pursue the study of Anthropology. The need for workers from among those who have studied these differ-

ent branches of human knowledge is very real. An Indian school of Anthropology cannot indeed be built up without the aid of these specialists. Pre-historic Archæology is indeed too closely connected with Anthropology to be neglected to any extent.

***Anthropology and the Indian Academy
of Sciences.***

The Indian Academy of Sciences inaugurated under the auspices of the Indian Institute of Science by our distinguished man of Science Sir C. V. Raman, actively aided by the leading devotees of almost every branch of scientific study in India, ought to prove of immense value to the development of such a school, especially as the extent of co-operation that might be expected from it seems nearly unlimited. Such a school, too, should deserve the united support of the Government of India and the Provincial and State Governments, besides the good-will and active aid of the Universities. A Pre-historic survey of India on the Provincial and State basis would be one of the first duties of such a School as I urged. The fear that the pursuit of pure science as such is of little use to the country must be cast aside, for there is hardly any ground for the distinction that is sometimes sought to be made between pure science and applied science : The one really leads to the other ; indeed, the one cannot be thought of without the other. What pure science discovers today helps towards industrial advance tomorrow and thus becomes applied

science, in the commonest connotation of the phrase. Industrial advance in recent years has been very largely based on the demonstrations of pure science. What is increasingly needed in the country today is the encouragement of research-workers in pure science so that the country may be fully benefited not only by their work carried out irrespective of immediate results in the applied domain—but also by the cultural reputation that may be built up by them on the solid foundation of the high scientific work done by them. It is to be hoped that the foundation of the new Academy will through organization of research and that of the co-operative handling of larger propositions affecting research, might mean much to the country, if not to humanity itself.

Future Prospects.

There is no doubt that the country is getting ready for the next advance. Our workers are daily on the increase, as a glance through the pages of *Man in India*, so ably managed and edited by our good friend Rai Bahadur Sarat Chandra Roy and his associate, well indicates. Mr. Roy has been holding up the banner of progress most energetically and our thanks are due to him for his endeavours to help the cause of Anthropology in India. In this State, the Journal of the Mythic Society has been the means of bringing co-workers together in this field of research. The Society maintains a section devoted to Ethnology and its work has attracted wide attention. Still a great deal re-

mains to be done. The day when our Universities could organise expeditions for the study of Anthropological research as the European and American Universities and learned Societies do is still in the future. Meanwhile, let us hope that Annual conferences of this kind will help to create public opinion in favour of increased and unceasing research in regard to the study of Man, his past and present. As the poet puts it "the proper study of mankind is man" himself, and without that study, the progress of man is bound to be halting to a degree.

So—

Together let us beat this ample field,
Try what the open, what the covert yield ;
The latent tracts, the giddy heights, explore
Of all who blindly creep, or sightless soar ;
Eye nature's walks, shoot folly as it flies,
And catch the manners living as they rise ;
Laugh where we must, be candid where we can ;
But vindicate the ways of God to man.
Say first, of God above, of man below,
What can we reason, but from what we know ?

...

...

...

...

Observe how system into system runs,
What other planets circle other runs,
What varied beings people every star.

II. PRELIMINARIES TO THE STUDY OF THE RACIAL PROBLEM IN INDIA.

By

ANIL CHAUDHURI, M.SC., M.B., D.T.M.

It is a modern method in the scientific world to classify humanity by means of blood-group percentages. Hirschfeld and Hirschfeld are the pioneer workers in the field. They have classified peoples, after examining about 16 different nations into three groups :—

- (1) European
- (2) Intermediate
- (3) Asio-African

The biochemical index is their basis of classification, that is, the ratio of the percentage of the A factor in the blood to the percentage of B factor. The races who have an index above 1.8 are regarded as European type, those with an index between 1.3 and 1.8 are Intermediate type, and the races with an index of less than 1 are classed as Asio-African type.

Later on Steffan has attempted to classify races by means of Atlanticher index and Gondwanischer index and constructed a probable migratory history of these.

Ottenberg with still more data in hand has classified peoples into six types :—

- (1) Europeans
- (2) Intermediate
- (3) Hunan

- (4) Indo-Manchurian
- (5) African-South Asiatic
- (6) Pacific American

Bernstein and Snyder have conclusively proved that Hirschfelds' method of Racial classification is mathematically inadequate and absolutely arbitrary. Snyder has assumed that the blood groups are inherited as three multiple allelomorphs and has classified peoples on this basis. That is, his classification depends upon the frequencies of p, q, and r. His grouping is almost similar to Ottenberg's, except that re-naming and redistribution of a few component members of the types are found. This is an attempt on his part, though empirical and tentative, to classify humanity into natural groups. His types are as follows :—

1. The European
2. Intermediate
3. The Hunan
4. The Indo-Manchurian
5. The Africo-Malaysian
6. The Pacific American
7. The Australian

Information regarding the blood group percentages throughout the world is more and more forthcoming. From the standpoint of India, only one thousand cases have been examined by Hirschfelds, and certainly from these alone a complete racial classification cannot be constructed.

It is definitely known that there were several racial migrations in India, where racial admix-

ture is still going on, though a strong barrier of caste system puts a check to continuous race-miscegenation. Though my study is at present upon the Bengalis only, a highly mixed type racially, yet it is for the purpose of record and future study I have got to do this.

I examined the blood of 311 Bengalis irrespective of caste and creed and 154 Kayasthas of West Bengal separately. All the samples were examined fresh and carefully with standard cells and serum. The percentage of group IV is higher in my series of cases and the percentage of Group III is lesser than that of Hirschfelds. Moss's nomenclature is used in the following table of comparison :—

	Groups				Total
	I	II	III	IV	
Bangalis (mixed)	8.7	19.3	34.1	37.9	311
Kayasthas	7.8	20.8	32.5	38.9	154
Hirschfelds' Indians	8.5	19.0	41.2	31.3	1000

The frequencies p, q, and r of my population can be studied and compared to that of Hirschfelds' in the following table :—

	p.	q.	r.
Bengalis (mixed)	14.0	23.2	61.6
Kayasthas	14.9	22.1	64.4
Hirschfelds' Indians	14.9	29.1	55.9

From the above tables the differences can be seen and well judged. But whether it is statistically signi-

ficant or not can be ascertained, if the following formula of Prof. Karl Pearson is applied :—

$$x^2 = S_i \left\{ \frac{NN^1 \left(\frac{f_P}{N} - \frac{f_P^1}{N^1} \right)^2}{f_P + f_P^1} \right\}.$$

The peoples compared are only considered to be significantly differentiated in their blood group distributions when P falls below a value of 0.05 or 1 in 20.

I Bengalis and Kayasthas :—

$$\begin{aligned} x^2 &= N N^1 \times .000, 0067 \\ &= 311 \times 154 \times .000, 0067 \\ &= .3208898. \end{aligned}$$

∴ P = 7.80 (undifferentiated)

II Bengalis and Hirschfelds' Indians :—

$$\begin{aligned} x^2 &= N N^1 \times .000, 0200 \\ &= 1000 \times 311 \times .000, 0200 \\ &= 6.2200000 \end{aligned}$$

∴ P = .09 (undifferentiated)

III Kayasthas and Hirschfelds' Indians :—

$$\begin{aligned} x^2 &= N N^1 \times .000, 0341 \\ &= 1000 \times 154 \times .000, 0341 \\ &= 5.2514000 \end{aligned}$$

or P = .14 (undifferentiated).

Now the Racial controversies of the peoples of India, as already existing in the field of Anthropology, can now be considered. Sir Herbert Risley has classified the peoples of India into seven main physical types :—

1. The Turko-Iranian
2. The Indo-Aryan
3. The Scytho-Dravidian
4. The Aryan-Dravidian
5. The Mongolo-Dravidian (or Bengali type)
6. The Mongoloid
7. The Dravidian

Prof. Ruggeri suggests the following ethnic stratification for India. The races mentioned first were the earliest :—

- A. Negritos
- B. Pre-dravidians—The Australoid races
- C. Dravidian—having affinity with Homo Indo-Africanus-Ethiopicus.
- D. Tall Dolichocephalic elements
- E. Dolichocephalic—Aryan-Indo-European Brachymorphus.

This is a rather complex and too much stretched table. The difference between Negritos and Pre-dravidians is very hard to find by actual measurements. So we do not get any mention of either of them in Risley. In fact, Risley includes Pre-dravidians amongst his Dravidian type. He thinks that though the languages of the peoples differ, their physical type is the same, but this is not accepted by other Anthropologists.

Similarly we might omit the Tall Dolichocephalic type for all practical purposes.

As to the Mongoloid types of Risley, there is no difference of opinion, though it is not mentioned in his table. Turko-Iranians, Scytho-Dravidians

and Mongolo-Dravidians—all broad-headed peoples of Risley are included in the Brachycephalic leucoderms of Ruggeri. That is disputed by scholars. Chanda thinks that this broad-headed element in Beluchistan, Guzrat and Bengal cannot be sufficiently explained as due to mixture of broad-headed invaders with the long-headed Dravidians. Rather it should be ascribed to an invasion of a fair broad-headed race (Alpines) from near the Hindukush in Pre-historic times. After the long-headed Aryan had come and settled in the Punjab, these broad-headed peoples came and spread by the central belt towards the South and the East. Linguistic researches of some Anthropologists also show that there was a group of outer Aryan languages of the midland. As regards the second class, the Indo-Aryan type, there is no difficulty. It is akin to the Nordic and the same as Dolichocephalic Aryans of Ruggeri.

On the other hand, Dixon has classified races according to the three characteristics of the skull, the cephalic index, the altitudinal and nasal indices. He has arrived at 8 main types: Caspian, Mediterranean, Proto-negroid, Proto-australoid, Alpine, Ural, Palae-Alpine, and Mongoloid.

In the Punjab and Rajputana we get a tall dominantly dolichocephalic element with narrow, often aquiline, noses. To the southward in Sindh and Cutch a Brachycephalic Alpine element is present. In the Ganges Valley the Caspian Mediterranean type of the Punjab drops to the second place and the Negroid Platyrrhine form.

increases reaching about 80% in Chota Nagpur. In Bengal the Caspian Mediterranean types are replaced by two—the Alpine and the Palae-Alpine. In Nepal and Sikkim we do sometimes get an Alpine type mixed with the Palae-Alpine. In the North of India thus the truly Negroid factor is of relatively small importance, the platyrrhine dolichocephalic form being in most cases Proto-Anstraloid. In the South of India we have a very black-skinned people with strongly-marked curly or frizzly hair, very broad noses and thick lips. These are the Kadirs, Kanikars, Kurumbas, Pani-ans &c—mostly Proto-negroid mixed with Proto-australoid and perhaps a little Palae-alpine. These are the remnants of the oldest stratum of population. The Tamil and Telegu-speaking people of the Dravidian stock are of medium stature with very dark skin and sometimes wavy or curly hair; the head form is mostly long. In the tract on the Western coast between Rajputana and Canara we get a round-headed type which is mainly Alpine. The Marāṭhās and Guzrāṭīs are mixtures of Alpine and Palae-alpine, with Proto-Negroid and Proto-australoid. In the Todas and the Nairs we recognise Caspian Mediterranean types. In Ceylon also we find the Proto-australoid and Proto-negroid in equal proportion with a Caspian type in minority.

From all the preceding facts it may be suggested as a working hypothesis the following outlines of the racial history of the Indian area. The underlying oldest stratum of the whole population is a blend of Proto-australoid and

Proto-negroid types, the former probably stronger in the North, the latter in the South. This dark-skinned, more or less Negroid population was once in all probability spread over the whole Indian region, but has now largely disappeared in the West and North-west, at least in the castes of higher rank. Further eastward, in the Ganges Valley, it is still the dominant element in the majority of the people, particularly in the case of the remnants of aboriginal tribes. It is in Southern India and Ceylon, however, that this oldest stratum is most clearly in evidence. Prognathism, often characteristic of the Negroid mixtures in Africa, is, as a rule, little developed in India, although showing among some of the jungle tribes and in the ancient crania from Tinevely.

At a period as yet impossible to fix, but perhaps as early as the second or third millenium B.C., this early population became strongly modified by the intrusion of peoples largely of Palae-alpine type.

In the early part of the second millenium B. C., we know that Indo-European peoples were invading the plateau. Whether this theory is substantiated or not, it is at any rate clear that about the middle of the 2nd millenium B. C., there came into North-western India a considerable body of immigrants, speaking Indo-European languages, coming in from Afghanistan and also probably southwards along the Indus Valley. The new-comers were tall in stature, fair of skin, and

were a blend of Caspian and Mediterranean types, the former being in the considerable majority. As the Indo-European-Mediterranean invasion made its way down the Ganges Valley, its impetus and strength gradually waned, and instead of making up the bulk of the population, as it did in the west, it formed only the dominant aristocracy, impressing its language and culture upon the older peoples, and in the course of time mixed extensively with them, so that to-day the lowest castes in the Punjab have more of the blood of the Caspian-Mediterranean immigrants than do the highest castes in Bengal. All these immigrants and conquerors, Sacae, Huns, Turks, and Mongols, were mixed peoples; all save possibly the first were, however, primarily brachycephalic, with, on the whole, a dominance of Alpine type.

While it must be admitted that the earlier conquests seem to have involved more actual colonization and transference of people than the later, yet it may be doubted, I think, whether the final result of the whole Indo-Scythian domination was more than a very thin veneer of Alpine element laid upon a population already pretty strongly brachycephalic.

The analysis of the data on the lines here followed makes it very clear that the Indian problem of Racial classification is very difficult and intricate. And whether with Hirschfelds' one thousand cases only, Indians should be classed with Koreans, Manchus, Chinese, Ainus and Gypsies as belonging to the Indo-Manchurian type, I

leave it absolutely an open question at present. The time is come for a systematic blood-group survey in India, in order to prove racially that the social status of the caste usually bears a direct relation to the racial composition of its members.

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III. MARRIAGE BY ELOPEMENT AMONG THE PANIYANS OF WYNAD.

By

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The Wynad is an extension into Malabar of the highest part of the Deccan plateau in the region of the Nilgiris. About forty miles to the east of Calicut the western border of the Wynad plateau rises almost as a precipice to a height of nearly 3000 ft. As one goes along the excellent ghāt road, one is impressed by the luxuriant vegetation—the tall majestic trees with intensely dark and dense undergrowth, so dense that it drives animals there to an arboreal life; and from an anthropo-dynamic point of view, one feels that the ghat pass could rarely have been a popular and frequented thoroughfare. As one goes eastwards, the vegetation grows less and less in its wild profusion, the rainfall decreasing eastwards, till on the Mysore border are the deciduous forests of bamboo, the home of the deadliest malaria. Some of the valleys between chains of hillocks are slowly being cleared and converted into arable field, where various varieties of paddy are cultivated. The temperature being lower than that of the plains, paddy takes from 6 to 12 months to ripen, but the yield is indeed rich. On the hill slopes are rich coffee estates and rubber plantations owned mostly by English planters employing men from the plains who are more

efficient than the aboriginal labourers. Tippu Sultan came across this tract from Mysore to invade Malabar, and before him the Kottayam Rājās made not very successful attempts to clear the jungles and colonise the area; men from the east, especially Jains, came and settled in some parts. The Kālī and Ganes'a temples and Jain shrines and numerous dolmens and urn burials here are the relics of early immigrations of exotic people.

The Paniyans, the original Veddoid inhabitants of this beautiful wilds are now the slaves of the exploiters from the plains, mostly Muslims, who have through the extremely subtle instrument of usury enslaved not only the Paniyans but also the more civilized Hindu immigrant castes like the Kurichiyans from the west and Chetties and Uralis from the east. As the bus speeds along from Calicut to Mysore one sees at frequent intervals on the roadside the huts of only the Mohammedan immigrants. A few Paniyans may be seen going along the road, but to see them in their natural surrounding a detour has to be made down hill to the edge of the paddy field. The Paniyan is so much linked with agricultural activities that his huts are almost in the fields, but he has not cut himself off from his savage sylvan moorings. The grey grass thatch of the half a dozen huts of a settlement shows itself as a dirty patch against the deep verdure of the forest. The fields are studded with little watch-houses where at night the Paniyan and his wife who watch the fields against the ravages of wild boars and

other pests have their shelter. The huts of the settlement are flimsy structures having bamboo wattle work plastered over with clay as walls on only three sides and clay flooring smeared with cowdung. Almost in the central part of the house is the domestic fire near which the family sleep, partly as protection from the biting cold especially of the winter. Throughout the day the settlements are deserted except for a few old people and young children, as the rest are away at work in the fields or collecting roots in the jungle or catching vermin.

Though short-statured, they are a very hardy people. Agriculture in Wynad would be impossible without the Paniyans. They only can control the wild buffaloes and plough in the knee-deep mud full of leeches. Imported labour from the plains is costly and succumbs easily to the dreadful malaria. Much to the dismay of the anthropologist who would like to see the lot of the Paniyans improve, they remain improvident, underpaid, and ignorant of their own importance to the country. The psychological characteristic of the Paniyans is typical of the primitive in the twilight between the old pre-economic and self-sufficient tribal life of food-gathering and the new life of competitive economics, increasing wants, and the resultant disappointments, rancour, and maladjustments. When he has earned enough to sustain himself for a couple of days, the average member of the tribe remains at home lazy till he is in want again. Though virgin land is available for cultivation free of taxes, only a few of

the 32,410 Paniyans cultivate some square yards of land. The Paniyans are more fond of rice than of yams or the wild colocasia or the *rāgi* (*Elusene coracana*). For a bit of tobacco or a few ounces of country spirits they work for hours. Only the most intelligent of them know counting beyond twenty. The Muslim shop-keepers take full advantage of the unarithmetical nature of the Paniyans to dupe them in ordinary business transactions in the bazar. The *pappan*, their master, is to them the representative of all administrative and judicial authority beyond which they know only the dreaded vaccinator or still more rarely the policemen. If one master proves oppressive, the whole settlement of his Paniyan slaves decamp into the jungle and, after travelling some miles, take up service under some new master who will only be too glad to have more hands to work, for labour is dear. The cultivators whom I knew were all for the re-introduction of the repealed Labour Regulation which made indentured slaves of the Paniyans. The efforts of the Labour Department of the Madras Government who are the official protectors of the backward people have been directed towards giving the Paniyans the benefit of schools, but not towards the more important and urgent question of wages. The Paniyas are encouraged to join the schools for the children of the immigrants; there are now a few children of the Paniyans at school but their masters the *pappans*—discourage the spread of education among them by ridicule and by threat. An old Paniyan told me, “Pappan, we have no brains, why bother about educating us?”

The Paniyan slaves himself day in and day out for a daily wage of paddy paid invariably in kind worth at present less than two annas and his wife for half as much only. Only the able-bodied slave on active service gets this wage. Animal diet consists of crabs, snails, birds, and other small game snared or shot with the bow and arrow the use of which the Paniyans have learnt from the Kurichiyans. Rice is supplemented by wild roots gathered everyday, and *rāgi* which is one of the subsidiary crops in this area. Vegetable dishes of cucurbitaceous fruits are also usually prepared either from fresh or dried stock.

As the day closes the deserted settlement begins to bubble with life. The women are found busy pounding the *rāgi* for making porridge or scraping and preparing roots. The men, who have nothing in particular to do, beat the humming drum (*urumattudi*) or play on the flute (*china*), the plaintive note of which can be heard from any settlement as a testimony to the love of music of the Paniyans.

The Paniyans have developed extreme individualism in the matter of residence. As soon as a man is married he moves into a new hut which he has made for himself exclusively. This new hut is usually near those of his father and brothers, so that with the founding of the new family the intensity of other kinship bonds is not at all lessened. But authority of any form is little developed within even the kinship group; though there is a Muppan (headman) for each

settlement his powers are very limited and extends nowadays to merely co-ordinating certain common activities as the annual 'All Souls' day for the deceased (*penan*). The solidarity of a settlement lies in the fact that most often it is a kinship group. Considering the extremely simple culture to which the Paniyans have attained, and the lack of differentiation into economic or professional classes it is no wonder that they have no political or legal institutions of any but the vaguest nature.

Such in a nutshell is the general sociology of the Paniyans whose peculiar marriage customs are the subject that interests us here. The orthodox form of Paniyan marriage is described by the late Mr. C. Gopalan Nair in his extremely synoptic account of them in his little book on the tribes of Wynad. An elderly relative arranges the preliminaries, the bridegroom goes to the girl's house, pays a bride-price of about Rs 4 to the bride's father or uncle and he presents the bride with bangles and necklaces of beads. The groom and bride stand on bags of paddy throughout this part of the ceremony. "Then they step down and the bride's bag which is smaller is tossed to the bride-groom who tosses it back. This goes on for a few minutes."

I had recently the opportunity of making a statistical enquiry into the prevalence of the heterodox form of marriage by elopement. Exact figures are not available nor are they easily got unless a thorough survey is undertaken. But in the group of about two hundred men into whose

matrimonial condition my enquiry extended it was found over half the number had wives obtained by elopement. The frequency of the latter form of obtaining a wife is interesting from the point of anthropological theory as throwing light on the nature of primitive marriage and sexual life. Elopement may either be sporadic or institutionalised, but the figures show that with the Paniyans it is not an institution. We shall proceed to give some actual case histories that would give concreteness to our discussion.

Onan, my Paniyan friend, was not communicative, like others of his tribe, on sexual matters. He could not tell me how old he was; in fact no Paniyan knows his age and leaves it to be judged by others. Like other boys he had very indulgent parents who never think of or can even stand the sight of children being chastised. It is not possible to say whether this extreme fondness for children is the result of the prevalence of infant mortality which may make the surviving children more beloved, or whether it is on account of the absence of any necessity for strict discipline and preparation for arduous adult life as in communities with more complex cultures. To one not familiar with life in Wynad the Paniyan children might appear to be lacking in respect for their elders. When he was quite young Onan had to leave his paternal settlement to work under an estate-owner a few miles away. There along with other adolescent boys and girls he used to work in the fields. Now courtship begins, Youths

and maids are anxious to deck themselves, but they have a rather limited list of beauty materials. They trim their curls and take immense pride in them. Girls shave the hair in the region of the temples and allow the longer frontal tresses to trail down covering the ears and the cheeks. This kind of hair-dressing is the fashion not only of the Paniyans but also of the Todas, their neighbours on the east. In their enlarged ear-lobes the girls have *pandanus* scrolls in which bright *abrus* seeds are set in a matrix of beeswax. A cotton cloth is tied not round the waist as among women in the plains, but round the breast as among the Toda women, well concealing the breasts; and a waist band of red or blue cotton cloth about eight inches broad is tied neatly on the hips. Brighter this waist band the prouder the wearer is over it. Young men have very few fineries except for leather belts or ear-rings. It is only their work that brings young folk together. According to the usages of the Paniyans none goes to a stranger's place except for very important business.

Though there is no avoidance, strict reserve is maintained between a woman and her husband's father and his elder brothers. The husband is not the lord and master of his wife and so he hedges her with jealousy. A Paniyan wife is a very precarious possession. She has to be won in most cases and retained with equal difficulty. During my lonely walks with him, my friend Onan narrated to me how he married Velatti (the white one). They were both working under the same master and came to like each other; he used to present

her with beads, sweets and other nice things. When she was older, but not yet mature, he presented her with betel leaves and areca nuts which she accepted. These are not usually offered to strangers especially to women and acceptance of them by a woman was confirmation in a ritual way that she cared for the man who offered them. Thereafter they used to meet in the jungles where she would go to gather roots. The jungle is the trysting place of these people and any jocular reference to root-digging expeditions makes the Paniyans feel 'shame'. After they had met several times in this way, Onan asked Vellatti, "Shall we run away?" She agreed and together they escaped one night and lived in the jungle for three days eating only wild roots or birds which he snared. In the depth of the jungles the girl's relatives could not find them. On the fourth day Onan and Velatti came to his paternal village where they were welcomed by his relatives. Very soon the parents of the girl arrived at the village. They belaboured the girl for running away, but she did not mind them. The bride-price of Rs 5/-—they call it 'fine'—was paid in small instalments to the father-in-law. Without any more ceremony they became man and wife.

The advantage of a marriage by elopement is that it saves the bridegroom the trouble of paying the bride-price immediately in a lump sum and also the expenses of a marriage feast. Very few Paniyans are able to save the amount required for these items, hence they resort to the short cut method of marriage by elopement. After

the marriage whether in the orthodox way or by elopement, the bride's father and after him her maternal uncle has to be paid every year the *talapattam* (the rental value) for her. The couple go after the harvest in the month of January to the bride's parental home with Re 1 for *talapattam* and a basketful of paddy to cover the cost of their stay as guests there. Whenever Paniyans visit their relatives they carry rice with them and eat it separately in order to avoid their being a burden to the hosts. The *talapattam* is not really a kind of "rent" as the word means, but it is only a regular gift to the wife's father from the man for which he receives in his turn a new piece of cotton cloth.

The marriage tie among the Paniyans is very loose. The very first of the dreams of the Paniyans that I collected and which I am told is a common type is the anxiety-dream about some lover stealing one's wife. A deaf-mute whom I knew has as his present wife a woman much younger than himself who had two husbands previously and from the second of whom she eloped with the present man. Another Paniyan friend of mine told me that his sister, a widow with a child, disappeared with her lover and that he was still in the dark about her. He felt sorry for the loss, but expressed his feelings in the typical Paniyan way, "If he and she loved each other I can do nothing in the matter."

The Paniyans do not resort to love magic in the case of a girl not reciprocating a man's love. There is no force used in matters of love. In

some instances elopement takes place with the knowledge of the man's relatives who help him and his bride during their period of hiding. The children born to parents who were married by elopement suffer no loss of status. It is therefore quite likely that Paniyan marriage by elopement is an institution in the broad sense of the word.

IV. A FEW FASTS, FESTIVITIES AND OBSERVANCES IN ORISSA.

[Continued from p. 59 of Vol. XV No. 1 (January—March 1935).]

By

NARAYANA TRIPATTI, B.A.

II. The Maha-Lakshmi Puja.

(a) *Māṇa-basā Gurubāra Oshā.*

Māṇa is the local name for a small cane-made grain measure with which unboiled rice, *dal*, fried or parched or flattened rice, etc, required for daily consumption and paddy-wages for day-labourers are measured. Its shape or measurement is not uniform, but varies from place to place according to the local conditions and circumstances. Generally a *māṇa*-ful of rice weighs a little over one-fourth of a *seer*. The observance to be described is called the *Māṇabasā Gurubāra*, because it takes place on the *Guru-bāra* days (Thursdays) in the month of *Mārgas'ira*, and on this occasion the goddess Lakshmi is invoked and worshipped in the shape of a *māṇa*-ful of new white paddy. It is owing to this association that both the *māṇa* and paddy-grains are universally held in reverence and their accidental touch with the feet is considered very unlucky. The worship is repeated five times in the particular month, viz, on all the four Thursdays in the month of *Mārgas'ira*, and once on any Thursday on the month of *Māgha*. Lakshmi is the goddess of prosperity,

wealth, food and clothes, and any disregard of her worship is believed to bring all sorts of misfortune. She is the goddess who is believed to be accessible to all alike and to bestow her favours on deserving persons without any distinction of caste and creed, high or low. She likes to accept the *pujā* (worship) at the hands of all, whether male or female, Brāhmaṇa or Chāṇḍāla, if offered with genuine sincerity and true devotion. But, true to her feminine nature and universal Motherhood, she has ordained that her *Māṇabasā* and *Sudās'a-brata*, which are simple rites and do not necessarily require any recitation of any *mantras* for their due performance, should be observed exclusively by the female-folk, the male members playing second fiddle and observing the restrictions prescribed for the occasion. The simple-minded rustic is, as a rule, highly conservative to the core and naturally cherishes an unflinching devotion towards a Mother-goddess whom he has been taught from his cradle to regard as, or instinctively believes to be, the kind-hearted Deity who alone can supply him with food, money and clothes and remove all his wants, even without asking. So it is no wonder that these *Oshās* are observed to the minutest detail in every house, without any distinction of caste or creed by every one, high or low, rich or poor, and that even the poorest of the Orissān hamlets puts on a gala dress of purity, sanctity and devotion, and there echo and re-echo, off and on, the joyous, reverential *huluhuli* sounds from early dawn to night-fall on those sacred Thursdays.

Two or three days previous to the first Thursday in the month of Mārgas'ira the mistress of the house applies her mind attentively to the cleaning of the *ghara-duara* (house). All the walls and floors are smeared with the usual solution of earth and cowdung, and every bit of rubbish or refuse is scrupulously removed. All the outer sides of the walls are painted with the *chita* (figures drawn with the solution of dry husked-rice-paste). Clusters of rice-plants with the grain, paddy-sheaves, paddy stacks and granaries of various sizes, and old broomsticks used in sweeping corn in the threshing-floors, constitute the only designs of the *chita* on these occasions. On Wednesday (preferably in the night after the conclusion of the daily routine business) the court-yard and the floor of the room selected for the *pūjā-ghara* are again washed clean with cowdung-water, and all the sweepings removed. Beginning from the *dāṇḍa* (front road or front court-yard), as well as from the *bādīara* (back road or back court-yard), lotus flowers and small picturesque human foot-prints called *Lakshmī-pada* or foot-prints of the Goddess Lakshmī, are figured copiously in *chita* in obverse and reverse order in two rows, one row leading from the *dāṇḍa* (front side) to different rooms, particularly to the kitchen, the *keṭhī-ghara* or granary, and the *pūjā-ghara* or the worship-room, and the other row leading from the *bādīara* (back side) to those very rooms. The belief is that as there is no knowing by which way Lakshmī Ṭhākuraṇī would be coming, all the entrance-ways to the house should be kept ready for her, and that by seeing

her own foot-prints (of course in *chita*) she would invariably be pleased to follow them and thereby visit the rooms they lead to; the rooms so visited will be filled with plenty by a single auspicious glance of hers.

The floor of the *pūjā-ghara* is beautifully painted with *chita* of lotus-flowers, foot-prints, creepers and rupees. In the central spot is drawn the figure of a large creeper, circularly coiled with its leaves, buds and flowers protruding from its stem. In the centre of this circular creeper is drawn a *Koṭhi* or wooden structure for storing paddy, of a perfectly square shape with a door on each side. The lines of this *Koṭhi* must on no account be slanting or curved. In the centre of this *Koṭhi* is drawn another small beautiful lotus flower and, within this lotus flower, a beautiful pair of *Lakshmī-pāda*. The remaining space within this *Koṭhi* is filled with *chita* of lotus flowers, paddy-grains, paddy-husks, rice, broken rice particles, rupees and *cowries*, etc.

At early dawn on the Thursday in question before cock-crow all the members of the house leave their beds. The rooms and the court-yard are again swept very clean and all arrear-work is finished as quickly as possible. Then the female members of the house take their bath and put on cleanly-washed *sāris* (silk or *tassarati*, if available) and other ceremonial decorations. A circular spot of red-lead is painted just in the middle of the surface of

each side of the *erundi-bandha*¹, or lower piece of the door-frame which has been previously decorated with *chita*. Then the 'house-mother' or the most respectable lady of the family accompanied by other females enters the *pūjā-ghara* and amidst peals of *huluhuli*-sound sets about the installation of the goddess. The *khaṭuli* (a small wooden throne-like seat over which the images of the house-hold deities are placed), the *māṇa-piḍhā*, a small beautifully engraved stool-like seat of *amalakī* (*Phyllanthus emblica*) or *panasā* (*Artocarpus integrifolia*) wood, the *māṇa* or the *aḍhā* (a small wooden measure of the same quantity as the *māṇa*) and sundry other things required for the ceremony, which have been cleanly washed and decorated the day before with *chita* in the same manner as the *koṭhi* mentioned above, are all brought in and drops of pure water are sprinkled over them with the recital of the sacred word "Vishnu" with a view to sanctify them again. Marks of sandal-paste and vermilion are then applied to them. The lady places the *khaṭuli* over the figure of lotus-flower in the centre of the *koṭhi* and over the *khaṭuli* a new piece of *chhiṭa* or coloured cloth is spread. Over the cloth is spread a small quantity (one or two *seers*) of brand-

¹ For some reasons the *erundi-bandha* in each room is considered sacred. No one is allowed, nor does the master of the house himself venture, to sit on it. Any accidental touch of it with the feet, particularly on Thursdays is believed to be very unlucky, and is instantly atoned for by the automatic utterance of the sacred name of "Vishnu" with the simultaneous movement of the right hand to touch the door-sill and the forehead alternately with the finger-tips, as a token of showing reverence.

new paddy of white colour and over the paddy is placed the *māṇa-piḍhā*. Over the *piḍhā* is kept the *Māṇa* (or the *māṇa aḍhā* as may be customary with the particular family) filled to the brim with brand new paddy of white colour with three or five fully developed uncleft betel-nuts set up on the top. These betel-nuts require to be previously washed with turmeric-paste-water and are now marked with sandal-paste and vermilion. Then over the *māṇa*-ful of paddy is placed one-two- or-three-headed *Dhāna-Meṇṭā*² and the whole lot is covered up with a new beautiful *chhiṭa*-coloured *Sārī* so as to give it the appearance of a veiled lady or goddess.³ The *Meṇṭā* as well as the *Māṇa* are given marks of *kajjvala* or colly-rium, sandal-paste, vermilion, and *chuā*, (a kind of sweet-scented oil locally prepared in Ōṛissā and believed to be much liked by all the goddesses.), and is decorated with flowers of five different colours, including those of *dāsa-kerentā* (*Melochia corchorifolia*), and of *amalā* (*Phyllanthus emblica*). A radish is kept on each side of it and in the front a little quantity of mustard flower. On one side are also kept the *kajala-pāṭi* or a small iron case used to hold eye-paint, the vermilion-case, and also a small quantity of broken rice, refuse of cleansed rice and fine husk. All these are kept within the *koṭhi*. Outside the *koṭhi*, in the

² A *Menta* is a round bunch of paddy-stalks made by weaving the stems into a long braid and then twining it round in a spiral shape.

³ In some families, a pair of 'eyes' made of *gandha-haladi* (a kind of turmeric) or *gandha-chandana*. (scented sandal) is set in the paddy over the *mana*.

left front, is set up the usual *kalasha* or sacred pitcher, and in the right front are kept a few ripe plantains, some pieces of skinned sugar-cane and various kinds of fruits, flowers and other things required for the *pūjā* or worship. Incense is burnt and amidst *huluhuli* sounds the goddess Lakshmī is invoked by wave-offerings of lighted *ghee*-wicks, repeated seven times. This invocation is done by the females and no utterance of any *Mantram* is required for the purpose. After invocation, *pañcāmṛita* is offered and then a little quantity of cheese, *gūr* and other items of the *Bala bhōga* (called at places the *ni-samkhuḍi bhōga*).

The main *bhōga* offering or the *Samkhuḍi bhōga* is offered at noon. It must consist of pure *sāttvika* food and is prepared with the utmost cleanliness and purity. Generally it consists of *khiri*, *khechḍi*, two or more kinds of *ghee*-cakes, and, various kinds of vegetable-curry and *S'āga* greens, in which radish, the favourite item of Lakshmī plays an invariable and important part. A little quantity of *dahi-pakhāla* is also invariably offered. In addition to these, a special *bhōga* has been prescribed for each turn, viz, (1) on the first Thursday the goddess is to be offered *tarāṇa*,⁴ a kind of rice-gruel; (2) on the second Thursday, a kind of cake called *chitān-piṭhā*; (3) on the third, *dadhi-tarāṇi* (a kind of rice soaked in water

⁴ A *manaful* of white new paddy grains is sunned in the part of the courtyard already besmeared with cowdung-solution. Birds such as crows, sparrows etc. which come to eat up the grains are not to be disturbed in any way. The remaining grains are husked and the *tarāṇa* is made of that husked rice.

and mixed with curd, ginger, lemon-juice etc), and a kind of *birhu-piṭhā* (cake made of *phaseolus max*) called *katnā* ; (4) on the fourth, *khiri* or sweetened rice-milk, *khecheḍi* [a mixed dish made chiefly of *arnā* (sun-dried) rice, *muga-dāli* (fried and split *muga* pulse) seasoned with a little quantity of ghee, coconut-kernel, salt, sugar and spices, etc.], *kākara* cake, and sweet-meats ; (5) on the fifth or last Thursday cakes of five different colours, including the *maṇḍā-piṭhā* cake. After the *Samkhuḍi bhōga*, in the afternoon, *kathā*-stories connected with this worship, (see below) are recited before the goddess and the ladies of the house listen to them with rapt attention and intense devotion. In the evening *birhi-barrāh* is offered. In the morning of the Friday—in some families, in the evening of the Thursday just before sun-set,—the farewell ceremony of the goddess is performed. The floors and the courtyard are swept clean. An elderly lady (after taking bath if it is Friday morning) accompanied by other ladies of the house and amidst peals of *huluhuli* sound takes out the paddy and other *pūjā* articles and stores them in a sacred earthen pot in a secret or inaccessible place.

The paddy grains used in the *māya* and also the *dhānā-menṭā* must be new, i.e., of that year's produce, and must be of white colour. If the grains are not yet ripe or otherwise ready in one's fields on the first Thursday, he must postpone the celebration of the ceremony to the second or third Thursday till they are ready. In that case, the special *bhōgas* due on the pre-

vious turns in arrears must be offered to the goddess on that day. The paddy intended for the *māṇa* is threshed out of the stalk by hand and no grain is allowed to touch the feet.

After the *Māṇa-ujjnam* or the conclusion of the ceremony, the paddy used in the *māṇa* and also in the *menṭa* is husked into rice with special care; and the husks and other refuse are thrown into a pond. An auspicious day is selected when this rice, rendered into porridge, puddings, cakes or sweetmeats, is taken at a feast. The strict injunction is that this rice or other dishes of the feast made of this rice must be taken *only* by the actual members of the family; it is not to be taken by others, even by married daughters, sons-in-law, *etc.* The same restriction applies to the *bhōga* offerings made to the goddess Lakshmī on *Māṇa-basā* Thursdays. Persons other than the actual family members, guests and servants are given the offerings made to the *kalasha* (sacred pitcher set up in front of the goddess), the *Tulasi chaurā*, the household deities and village *Thākuraṇī*, but are not allowed to eat the offerings made to the goddess Lakshmī. On these Thursdays the female members of the house are not to take anything other than the *prasāda bhōga* of Lakshmī.

The following are some of the acts which a female *should not do* on any Thursday, especially on the *Māṇa-basā* Thursdays:—Frying rice,—particularly, preparing *khai*; selling or in any way parting with paddy-grains; heating or boiling paddy grains; taking *amisa* (fish, meat *etc.*) food; leaving the hair of the head unwashed; taking the leavings of food

or offering them to others; anointing one's body with oil; spinning cotton; taking gourd-curry; sleeping in the shadow of the bed-stead; taking rice mixed with curds in the night; throwing particles of food on the ground while taking one's meals; taking an excessive quantity of food and throwing away the excess after the meal; leaving the floors and the court-yard unbesmeared with cow-dung-water on a Thursday morning owing to idleness; leaving ashes in the hearth; beating children; leaving black coatings on the cooking earthen pots at the time of washing them; kindling the evening wick after twilight (*sandhyā*); taking burnt things on Thursdays; spreading the sleeping bed obliquely; sleeping naked; not showing proper respect to one's parents-in-law; taking or serving food with the feet unwashed; taking food in the night on Thursdays as well as on *Amabasyās* and *Samkrāntis* or having sexual intercourse on those days; taking any bitter food; cutting pumpkins into pieces; laughing loudly at the time of taking food or while talking; taking food facing north or west; arranging hair after twilight; taking food in the dark; scratching the earth with the nails; not washing the mouth after meals; fanning with the ends of the *sārī* one is wearing; picking up quarrels with others; showing a tendency to be idle; speaking hot words; getting angry with one's husband and disobeying him or showing disrespect to him in any way; desiring intimacy with persons other than one's husband; not washing the face after leaving bed in the morning; sleeping in the old bed after the close of the night; sitting on the naked earth (i.e., not using a

seat) while taking food; not keeping neat and clean; putting on dirty clothes; paring nails on Thursdays; washing unclean utensils at the bathing *ghāṭs*; sleeping with the head turned towards the west; taking milk with *amisa* food or other inedible things; not washing the house with cowdung-water; cutting jokes with a Brāhmaṇa; disappointing one's guests; *etc, etc.* The custom of not selling paddy-grains or in any way removing them from the granaries, straw-stores *etc.* on all Thursdays in the year, particularly on Wednesdays and Thursdays in the month of Mārgasira is very strictly observed. Even the paddy-wages to servants and day-labourers are not paid on these days. The custom has developed to such an extent that removal of coins of any kind, of ornaments of any metal, *etc.*, from one's trunks or wooden boxes is not allowed, and all money-transactions, measurement of land, execution of deeds, mortgage *etc.* are avoided as far as possible on Thursdays. The universal belief with the illiterate masses is that paddy-grains, coins, ornaments *etc.* are the physical manifestations of the goddess Lakshmī and that any voluntary relinquishment of these things on Her *bāra* or day (*i.e.*, Thursday) means wilfully bidding farewell to Her, and thereby inviting misery, misfortune and poverty in the near future.

The following acts are considered very meritorious for the female-folk, if performed on Thursdays:—To bathe plunging the head and hair into water; to put on white (cleanly washed) *s'āri*; to take S'aga greens, curds, a little quantity of

broken rice and fine rice-husk, to prepare sweetened rice in a new *Pāka*⁵ and to feed guests with it, to observe the *Lakshmī-bratas* faithfully and to show sincere devotion to one's husband, to smear with the solution of cowdung and earth the *Tulasī-chaurā* (a small square mud platform with a conical mud mound over it at the top of which the sacred *Tulasī* plant is grown), to give food and cloth to the *Brāhmaṇas*, to hear the recitation of the *Bhāgabata Purāṇa* and to think of *Laksmī-Nārāyaṇa*. The *Laksmī-Purāṇa* gives special stress to neatness and cleanliness and devotion to one's husband on the part of a woman, and says that if a woman makes herself ugly or becomes angry with her husband and does not do what he says, she incurs the displeasure of the goddess *Laksmī* who would make her poor so as to have to beg for food from door to door. The Goddess does not visit a house where the women are very quarrelsome, idle, impudent, unamiable and unkind, and do not show proper respect to gods, *Brāhmaṇas* and guests. If a woman does not serve her husband with devotion, she becomes miserable in husbands and sons in several future births. If a lady regards her husband as a god and pleases him by service after his mind, keeps her

⁵ In the new *paka*, the earthen cooking pots should be fresh and not previously made unclean any way by contact with impure things. The use of oil is avoided as far as practicable. The hearth should previously be washed very clean. A little quantity of all the items of cooked food is first thrown into the hearth as an offering to the Fire-god before it is served to others.

own body and dress neat and clean, sees all with equal eye and does not show any partiality at the time of serving food even towards her own husband or sons, does not disobey her husband on any occasion and feels sincere sympathy in his weal and woe, the goddess Laksmī never forsakes the house of such a lady and never brings misfortune and misery on her: In this earthly life she passes her days in plenty and happiness blessed with wealth and prosperity, good husband, sons and daughters, and, after death, she goes to Baikunṭha (celestial abode of Lord Vishnu) and lives there in perpetual bliss with Lakshmī. A *Sadhabā* lady (a married woman whose husband is living) has no other course left to her except devotion to her husband, penance, and austerities (*tapa*), repeating God's name (*japa*), performing *deva*-worship. If a woman leaving service to her husband aside goes on a pilgrimage she is destined to become a child-widow in several successive future births. The Goddess Laksmī always remains in company of those ladies who do not give up their *kula-dharma* even a bit, gladly serve their guests, always maintain good conduct, and are devoted to their husbands for life. For a woman, devotion to husband and observing the *Lakshmī-vratas* on Thursdays, are the only two permissible courses to follow; it is totally useless for her to worship other gods or goddesses, or to go on a pilgrimage.

The following funny anecdote rendered in beautiful Oriya verse into the Lakshmī-Purāṇa (and also into the Mahā Lakshmī-Bhāgavata) by the

ancient Oṛiya poet Balarām Dāsa (14th-15th-century A. D.) is recited before the goddess Lakshmī in the afternoon of each *Māṇa-basā* Thursday, and the female-folk constitute the main audience.

Once upon a time, the 10th *tithi* (lunar day) of the bright fortnight in the month of Marga-s'ira fell on a Thursday. Mother Lakshmī, longing for the welfare of mankind, desired to take a walk in the town (of Puri). Neatly attired in a white *s'āri* and putting on various kinds of ornaments and flowers, she came out of the *Baḍa Deula* (the Jagannātha-Temple at Puri) and riding on a white elephant she had a peep into every house. To her great disappointment she did not find a single house neat and clean. Disguising herself in the shape of an old Brahmana lady she appeared before Padmāvatī, a Sādhaba lady of wealth and position, gave her detailed instructions how to observe the *Lakshmī vratas* on such auspicious days and thereby to obtain glory and prosperity, and then she vanished. After a few days, the 10th *tithi* (lunar day) of the bright fortnight of the month of Bais'ākha fell on a Thursday, and owing to this *yoga* (conjunction) the *Lakshmī-vrata* observed on that day is called the *Sudas'a-vrata*. On Wednesday Mother Lakshmī lying prostrate at the feet of Lord Jagannātha (in the *Baḍa Deula*), with folded hands, asked His permission to go out to have a walk in the town (Puri) the next day. With a compassionate heart towards her, the kind Lord replied. "Oh! My darling! If you go out on a visit to the town,

you must take care that my elder brother Balabhadra may not come to know of it. During the period when we two brothers shall be out ahunting you may go out and conclude your visit, and return ; otherwise disagreeable consequences will surely befall on his knowing of it." At this Lakshmī was glad. She finished her ablutions and other daily routine-work when the night was still one *prahara* left to dawn, and putting on Her dress, jewels and other decorations, was eagerly waiting for the town-visit. Balabhadra and Jagannātha with soldiers went out ahunting before dawn, and then getting this opportunity Lakshmī came out of the Baḍa-Deula. She walked leisurely with slow steps in the *Baḍa-Dāṇḍa*, (the royal broad Road in front of the Jagannātha-Temple extending from the *Simha-Dāṇḍa* or the Lion-gate to the *Gundichā-ghara*, on which the sacred Cars pass) and cast hurried glances at each house, but to her disappointment she did not find a single house made neat and clean. Some had not yet opened their front-doors ; some were found still sleeping and some drowsing without sprinkling cow-dung in the court-yards. All these showed that the people at large were not paying any regard to her *Vratas*. At one place she found six or seven women engaged in hot discussion about the merit or efficacy of these *Vratas* which had not been prescribed in the *Purāṇas*. She cursed them with poverty and walked on and on till she reached the outskirts of the town, where there were settlements of many low-born communities of the *Chāṇḍāla* class. There lived a Chāṇ-

dālīnī, (a Chāṇḍāla-woman) S'riyāvati by name who unostentiously used to maintain pure *āchāra* (conduct,) and taking bath in the very early morning used to sweep the *Gundichā-dāṇḍa* daily. That day she had left her bed half a *prahara* before dawn, and fetching the dung of a single-colour cow, she minutely smeared her *ghara-duāra* with cow-dung-solution, and sprinkled a small quantity of cow-dung-water in her court-yard. Then she painted her house with *chita* with *aruā*-rice-paste-water, and drew the figure of a lotus flower of sixteen *kōphis*. Setting up a *Kalāś'a* at the entrance she had decorated it with flowers of five different colours, and had observed the *Lakshmī-vrata* with a pure body and sincere soul. Seeing this Lakshmī was glad, and appearing in flesh before her in her humble hut, She personally accepted her *pūjā* and granted her boons of immense wealth, sons, cows and a happy life in this earth, and an abode in the Bāikunṭha-Pura after death.

While she (Lakshmī) was thus standing in the courtyard of S'riyā-Chāṇḍālīnī and was talking to her, it so happened that Balabhadra and Jagannātha were returning from hunting, and the former chanced to see her in the Chāṇḍāla-settlement. At this he grew very furious, and pointing her out to Jagannātha, he said "Look at the *āchāra* (conduct) of your wife, my brother! There she is standing in the house of a Chāṇḍāla! She is in the habit of visiting a *Hādī's* (sweeper's) home or a *Pāṇa's* home daily, and of entering the *Baḍa-Deula* without taking bath. She cooks our

food and thereby makes us impure by *jāti*, caste. On her *vrata* days she allows even the women of the lowest castes to offer worship at her feet ! If you have any need for your wife, Oh brother ! go quickly, build your home in the Chaṇḍāla settlement, and do not enter my Baḍa-Deula any more. Or, if you have any respect for my words, drive her out. No good cometh to one having such a woman for wife”.

To this Jagannātha replied, “Oh ! my elder brother, if I turn out a wife like Lakshmī, I shall never get her equal even though we make a careful and thorough search in the three worlds. If she has committed a fault, let us summon the inhabitants of the Svarga-pura (heaven), and giving them five lakhs of rupees let us get her restored to caste this time. If we find her doing any wrong action once again, I make a solemn promise to drive her out of the Temple for good. Oh, brother, she has committed the fault without knowing it. Be merciful and excuse her once for this first offence. When Baruṇa, the lord of the Ocean, gave her in marriage to me, he humbly besought you to forgive her for ten kinds of errors and you did make a promise to that effect, but, as yet there has not arisen a single occasion to put that promise to test”. At this Balabhadra flew into rage and said, “Oh Jagonnātha, I see you are too much attached to your wife. But if you do not give her up, you must get out of my house as it is sheer impossibility for me to live under the same roof where Lakshmī re-

sides. In the case of a man, his brother is like his arm while his wife is to be treated like the sandals of his feet. If the brother lives he can get a million of wives, but he cannot get a single brother even if he has countless wives. Think over this and drive out Lakshmī immediately. If she remains, evil will befall us and the *Deba-kula* (the family of the *devas*) will be stained." Jagannātha, unable to bear these reproachful words, made a promise by touching the feet of Balabhadra that he would give up Lakshmī, and sat with a heavy heart at the Lion's gate awaiting her return while the elder brother entered the Temple. After a while, Lakshmī arrived and the following conversation took place between the husband and wife.

Lakshmī :—Let me in, my Lord, let me in quickly. I have to cook the *das'amī-yogāḍa*, special dishes befitting the tenth *tithi*, today.

Jagannātha :—Oh my beloved ! Have you gone mad ! Why had you been to the *Chandāla-sāhi* ? If I would have been the first to see you there I could have concealed or overlooked the fact, but unfortunately my elder brother first saw you there and severely reproached me for your conduct. You are in the habit of presenting yourself at the door of a *Hāḍi* or a *Pāṇa* and entering the Temple without taking bath ! There is no greater sinner in the world than you. Oh my life-comrade ! you are *my* wife, still owing to your mad reckless, wandering habit, the world calls you the *Bai-Ṭhakurāṇi*, the insane goddess !! Some-

times you break one thousand homes and build one out of them, and, at other times, you make one thousand homes rise by breaking a single one! Such is your nature that you give high position to the low and make the high low! You have incurred the displeasure of my elder brother, and the matter has gone beyond my control. Go, Lakshmī, be away from my house today. I am no longer in need of you. You have lost your caste”.

Lakshmī :—Oh Lord! if you give me up, please write down a *Chhāḍa-patra* (divorce-deed) and hand it over to me so that I may go away remembering my own *gotra*.

Jagannātha :—I see you are gone mad, Oh Lakshmī! where does the practice of writing a *Chhāḍa-patra* exist in the houses of the Devas and the Brāhmaṇas? It portends no good looking again at the face of a wife already given up.

Lakshmī :—Have you forgotten the events which took place when you went to churn the ocean and got yourself duly married to me with the solemn recitation of the Vedic *mantras*? My father selected you for my life-mate and while offering my hand to you on the *kanaka Vēdi* he humbly requested you to excuse ten [kinds of] faults of mine. Out of ten, you have not tolerated a single one, and, from the start, you have now used the reproachful designation of “Chandalīnī” towards me. While, on the second day of our marriage we sat to play the usual *jua*-play with seven golden *kanḍis*, you, my lord, were unable

to snatch away the *kandis* from my closed first, and offered a boon to me saying, "Oh my life-mate, I will grant whatever boon you ask for". To that I replied with folded palms, "Listen, Oh Lord of the universe, on each eighth day will fall my Thursday. On that day I shall visit every house without any distinction of caste, creed, or religion, and shall distribute weekly rations to every being from the lowest little worm to the highest Brahma. You will not mind this fault of mine". You yourself did then say, "Let it be so". Why then my Lord are you going now to break your own promise?

At this Jagannātha got angry and said, "Your father is a salt-sea-snake ever roaring unto death. You are his cross-eyed daughter, the possessor of innumerable vices ! Unable to live amidst the constant thundering roars of your father, we two brothers have had to build a cloud-reaching wall round our Baḍa-Deula."

Lakshmī:—I stood for a while in the house of an untouchable person and it is only for this that you are driving me out as an out-caste. (one whose caste is lost for coming in contact with the Untouchables) ! But have you yourselves kept your *jāti* and *kula* pure or unalloyed ? Both of you brothers were brought up in a cowherd's house. You have taken cooked rice in the house of Nīmā Siputi, who is a *Goraka* by caste. While you had been to Hastināpur as a messenger you took food in the house of Vidura, Jārā a

forest-dwelling S'avara kept you for a long time. He used to collect fruits and roots from the jungle, first to taste them himself, to throw away the insipid ones, and to make you take only what had tasted sweet to him. You both the brothers have thus lost your caste by taking the leavings of a S'avara, and now this matter appears to have slipped away from your memory. Of course, you are big people and, as such, you are above any criticism ; otherwise you blame others for the very faults which you yourselves committed before,—not once, nor twice, but several times. Is there any husband in the world who does not tolerate his wife's defects, but forsakes her for a single mistake ?

Jagannātha :—All right, I can do this much. You may take a daily ration of one māṇa-ful of rice, and live outside. After a few days I shall pacify my bother and bring you back to the Temple. Now, I cannot disobey his orders.

Lakshmī :—I don't require your gift of daily ration. I am going away like a helpless, forlorn, unprotected woman. I am not a widow or a woman of evil portent and my father would not hesitate to receive his daughter. You may now take back the ornaments you gave me so that I may be spared further humiliation afterwards.

Jagannāth :—Oh Lakshmī ! I see you have gone mad. Why should I take out the ornaments from your body ? Is there a husband who takes out the ornaments with which his wife has adorned her body ?

Lakshmī :—I am your first married wife. When you marry again you will say, "Lakshmī was in my house and went away with ornaments worth one thousand rupees". I do not like the prospect of this sort of libel behind at my back.

So saying, she took out the ornaments, one by one from her person and placed them before Jagannātha. Said he :—What shall I do with a woman's ornaments? It is the time-honoured custom that when a householder forsakes his wife for good, he provides her with food and cloth for six months at the time of divorce. Now you may take back these ornaments with you for that maintenance-charge, so that you may procure your food and cloth by their periodical sale.

Lakshmī :—You may make over all these ornaments to the new wife you shall marry as my substitute. Let me go away as a forlorn helpless woman. Listen to me, Oh Lord, as you are leaving me for no fault of mine, take my curse that so long as the sun and the moon come and go, you will not get any food to eat or water to drink and cloth to put on unless and until I, a *Chandāla* woman, serve you with cooked rice with my own hands.

So saying she left the place, followed by her weeping maid-servants and repaired aimlessly towards the sea-shore. There she sat and after hard thinking she decided not to go to her father's place lest her father would, after a few days, give her back to Jagannātha on his going there. She

remembered Bis'vakarmā, the divine architect, and at her very thought of him, he appeared instantly before her; and she asked him to build a hut for her on the sea-shore in the Chāṇḍāla-settlement. He built a right royal palace for her, at which she was glad and blessed him. Then she summoned the Eight Vetālas and ordered them to enter the kitchen in the *Baḍa-Deula*, eat away the entire quantity of sixty-four *pantis* of *bhōga* and all other eatable things, break to pieces all the earthen-ware vessels, remove the fifty-two *koṣi* of stored articles, and not to leave anything worth a *cowrie*. On their hesitating lest they would be detected and get severely handled, she summoned the Goddess of Sleep, and asked her to keep the two brothers merged in sound sleep while the Vetālas would be busy in carrying out her orders. Her biddings were carried out to the very letter and the entire kitchen and the store were made absolutely empty. Even the costly garments and jewels which the brothers had worn on their persons, the sofas studded with pearls, gems and other precious stones, on which they had been sleeping, were mercilessly removed. Then Lakshmī remembered Savaswatī, and on her arrival narrated her pathetic story before her and asked her to make the mind of the people such that none would be willing to give any food or alms to the brothers when they would go out to beg. The brothers woke up late next morning, and, to their utter surprise, they did not find a single *Pandā Shevaka*, or any other temple-servant in attendance. They entered the kitchen for water to wash their faces, and there they found every

item of food-stuff eaten up or removed, and cooking pots and all other things either broken to pieces or stolen. At noon they felt hungry and thirsty, and went to the Indradyumna Tank, for water, but there they saw so deep a tank completely dry and not a single drop of water could be found anywhere. They came back to the Temple quite exhausted and fell into dead sleep without any food or drink. Next day, too, no better fate awaited them. In vain they searched hither and thither for anything to eat or quench their thirst. At last they decided to resort to beggary. With a mendicant's garb on the body and broken palm-leaf-umbrella in hand each moved from door to door, but no one would give them any alms. Sarasvatī made the intelligence of the multitude such that wherever the beggar-brothers went, they were mistaken for thieves or rogues and were mercilessly driven out with showers of abuses and threats. Even the wife and daughter-in-law of the Baḍa-Paṇḍa, the head priest of the Temple, gave them no better treatment. At one place an ascetic of doubtful caste, moved to pity at their deplorable condition, offered them some fried rice, but before they could drop it into their mouth, the Wind-God under orders of Lakshmi, successfully blew the grains away and they had to come back disappointed. Driven to despair they at last decided to live on fruits, roots and green foliage. That attempt, too, met with no better result. The trees, plants and creepers began to wither on their approach. Thus, being baffled in every direction and goaded with hunger

and thirst, they decided to go to the Chāṇḍāla-settlements, and beg cooked rice there.

Jagannātha was at first hesitating, but Balabhadra prevailed upon him saying that they should preserve their life first at any cost, and that if their life was saved they might get their *jāti* purified when the days of adversity would be over. So they went to the quarters of the Untouchables, and appearing before Ś'riyāvati Chandālīṇī in the disguise of good Brāhmaṇas, asked for cooked rice. After much hesitation she consented, but while she entered her kitchen, she found to her surprise and dismay, that rice, cooking-pots and even the hearth itself, had all miraculously vanished already. So she came back dejected, and dismissed the brothers saying that they had incurred the displeasure of the goddess Lakshmī and would not get any food anywhere until she was propitiated. The brothers were then thinking of going in quest of Lakshmī, when they met a *Yogi*, Satyānanda by name, who perceiving such miraculous disappearance of food before the brothers, advised them to go to the sea-shore and beg food from the house of a Chandālīṇī living there. It was then noon, and, with the noon-day heat, the parched particles of sand on the sea-shore were emitting fire. But the brothers were too famished to wait. So they ran to the destination heated to dead exhaustion.

The elder brother was the first to arrive, but was driven out by the maid-servants with abuses. Subsequently he followed the younger brother, and on arrival at the front gate in the guise of

Brahmana-mendicants, they recited sacred hymns from the Vedas. Lakshmī who was then reposing on a sofa in an inner apartment could hear this, and recognising the guest-brothers from their voice, enquired through her maid-servants what they wanted. They asked for food, and were told in reply that it was a Chāṇḍāla's home and that by their receiving or taking food there, they would lose their sacred caste. At this Balabhadra suggested that they might be supplied with new earthenware pots and fresh food-stuff (*nūā-sanchā*), so that they might cook their own food. The request was granted but Lakshmī thought within herself that if the brothers would successfully cook their food, then men would no longer require the services of women. So she commanded the Agni Devatā or the Fire-god to see that neither the cooking pots nor the water in it would get heated or boil, and that the fuel would emit only smoke when either of the brothers would sit down to cook. The Agni devatā did accordingly and the brothers, one by one, first Jagannātha and then Balabhadra, tried their utmost in vain to heat the earthen pot or the water in it. At this unexpected turn of events Balabhadra grew furious, broke the pots and threw away the raw costly food-stuffs to the jeering laughter of the attendant maid-servants. Then the brothers asked for cooked food prepared by the mistress of the house, as they had already decided to save their life at the sacrifice of their *jāti* or caste. At this Lakshmī was pacified and went into the kitchen to prepare the various kinds of food much

liked by the brothers. The two brothers were conducted to the tank and had had, after so many days of water-scarcity, a very pleasant and cooling bath. They were then admitted into the inner apartments and were served with the most delicious dishes specially liked by the brothers. From the mode of cooking, serving as well as from the *poḍa-piṭhā* or burnt cake which Jagannātha has always been in the habit of taking towards the conclusion of his meals—a thing which is not known to any one else except Lakshmī—the brothers could easily surmise that the lady of the house, the so-called Chāṇḍālī, was none other than their long-looked-for Lakshmī. So Jagannātha appeared before her, and, after some words of regret appeased her righteous indignation, and a happy reconciliation between the husband and wife was brought about. But, before she consented to return to the Baḍa-Deula she extracted several solemn promises from the two brothers, viz.—that (1) thenceforward she might be allowed to visit the houses of the untouchable communities with impunity; (2) that caste-considerations would not exist in the S'rī-kshetra (Puri town) in respect of their cooked-food-offerings called the Mahāprasād which should always be regarded as most sacred and above all pollution (i.e., a Brāhmaṇa and a Chāṇḍāla should without any the slightest hesitation take *mahāprasāda* together from the same pot, or, one would gladly snatch it from the other while eating) and (3) that after taking it one should clean his hands, not by washing them with water but by rubbing them in the hair on his head. From that day the above

promises are being most faithfully observed by the people of Ōṛissā.

The above story presents an illuminating social picture and the mentality of the high caste Hindus of Ōṛissā in the mediæval age, so far as the consideration of the Untouchability-question was concerned. The same mentality persists, more or less, with the old orthodox section even up to the present day. The story also may be taken to suggest indirectly that (like the Jagannātha-worship) the Lakshmī-pujā in the shape of the new-paddy-worship with the associated practice of painting the walls and the floors with *chitā*, has come down to us from the ancient S'avaras. It appears that the ancient poet Balarāma Das has codified a time-honoured observance and that Pratāpa Rudra Deva, the last Surya-Vans'ī emperor of Ōṛissā has given it a formal sanction.

In some families another story (said to have been taken from the Bhavishya Purāṇa) is also recited before the goddess on the Māṇa-basā Thursday. Very briefly the story is that in ancient times there lived in the town of Avanti a rich Sādhava, Ratnākara by name. He had immeasurable wealth, countless cows in his cattle-pasture, and his sons used to trade in *boitas* or merchant-ships in foreign lands. He had a daughter named S'amā Deī. On a certain Thursday, in the month of Mārgas'ira, the goddess Lakshmī, in the course of her wanderings, appeared before the wife of the Sādhava in the guise of an old hag, and asked her to observe her favourite *Dhāna-mayik Osha*.

The Sādhava's wife who was then busy with some domestic work, did not pay due attention to the advice and laughed at the idea of an observance which could be performed with only one māṇaful of new paddy, and sent Lakshmī away with abuses and insults. The latter was going away weeping while on the way she met the little Sāmā Deī returning home from her school. She ascertained the cause of her grief, and intuitively knowing her to be no other than the goddess Lakshmī herself, promised to observe her Oshā. The little girl kept her promise and shortly afterwards, she was chosen by and married to a prince with whom she lived very happily in very affluent circumstances in his kingdom, but, on the other hand, her parents sank low and still lower in the sea of adversity. Their seven *boutas* or merchant ships did not return with their seven sons from foreign lands. Their numerous cows, which had been out to graze, did not come back to the cow-pens. Their debtors turned hostile and did not pay. Their palatial dwelling-houses broke down. Little by little, they were reduced to abject misery and were at last obliged to live on alms. While in this condition, the father, clad in rags, went to his daughter Sāmā Deī's place, and after a very cordial and sympathetic reception and after some days' stay there, was sent back home with a quantity of gold and jewels stuffed and hidden inside a pumpkin. But, as ill-luck would have it, when the old man opened out the treasure before his wife, he, to his utter disappointment, found the precious stones already transformed into pieces of cinder. The half-famished poor mother was then advised to go to her daughter's place. She did so and received there a

still more affectionate reception. While she was there, she was prevailed upon by S'amā Deī to observe the Lakshmī Oshas with her. In the beginning she made minor omissions and could not observe the *vrata* minutely or faithfully owing to the impairing of her intelligence by the goddess Lakshmī, and under orders of the latter she was being driven out of the worship-room with severe chastisements and insults. But S'amā Deī by her sincere devotion, solicitations and entreaties, was at last successful in appeasing Her wrath and in obtaining for her mother Her forgiveness and favour. The old lady was then able to observe the *Gurubāra-Osha* properly, and, soon afterwards her days of adversity and misery were over. Her sons returned home with vast wealth from their distant voyages. The missing cows returned to their herd and the old S'adhaba Ratnākara became once again a very rich and important personage.

Such is the mighty power of the Goddess Lakshmī and such is the strength of the efficacy of the *Dhāna Manika Osha*.



MISCELLANEOUS CONTRIBUTIONS.

I. A NOTE ON THE INDIAN POTTER'S WHEEL.

It is well-known that potters in different lands and times have used two kinds of wheels—the single or the hand-wheel and double or the foot-wheel. The former kind has by far the widest distribution. In India the foot-wheel is confined to Sind, the Punjab and some western Districts of the United Provinces, the rest of India using only the hand-wheel.

The type of the foot-wheel is more or less uniform all over the area of its use. Both the discs are of wood and the diameters of the lower and the upper ones are two feet and ten inches respectively in the Punjab and the Districts of U. P.¹ But it appears from the information I collected at Sehwan in Sind that the discs in use there are larger, namely, three feet and one foot respectively. In Sind, the foot-wheel is generally known as the '*Pathan wheel*'; and two old potters of Hala and Sehwan told me that it was introduced into Sind during the last twenty or thirty years from the Punjab. At Hala I saw some potters working with the single wheel, while others worked with the double-wheel, though at Larkhana, a much more northern place, and therefore, perhaps, in greater touch with the Punjab, I saw only the foot-wheel. At Sehwan, which is

¹ *Journal of Indian Art & Industry*, Vol. V, "Pottery & Glass Industries of Punjab", P.37

almost due west of Hala, I came across a potter who was substituting the foot-wheel for his single wheel on which he used to work and he corroborated the information about the introduction of the foot-wheel.

There is much more variety both in the materials and the sizes of the single wheel. In Madras it has three parts, the centre, the rim and the connecting spokes. The centre is made of wood in the under-surface of which is a piece of hard wood or steel which serves as the pivot. The pivot rests and moves in a depression in the support, which is made of clay mixed with goat's hair and has a piece of stone or hard wood with a depression imbedded in it. The spokes are of wood and four in number. The rim is formed by pieces of wood or bamboo sticks held together and thickly covered with clay mixed with goat's hair. The diameter of the whole is about three feet and a half³. The Bengal wheel appears to be almost identical except in three points. First, the pivot is long and therefore the support is very short. It is only the stone with depression in which the pivot moves. Second, the spokes are also covered with the clay weightage. Third, the adhesive material mixed in the clay is jute-waste. But there also appears to be in use an alternative wheel which is made of clay as the following description will make it clear. "The wheel is

² *Ibid.*, Vol. VII "Pottery in N. W. P. & Oudh," PP. 3-4.

³ *Journal of Indian Art and Industry*, Vol. VII, "Modern Madras Pottery," p. 9.

the Roman Rota, a disc of clay, weighted along the rim"⁴. I have failed to get any particulars about it.

The wheel in use in Gujarat and Kathiawar has a piece of flint with a hollow in it inserted in the underside of the central disc of wood which is ten inches in diameter and has eight spokes of bamboo strips. The rim is made of strips of bamboo held together by the coir or hair from horses' tail and is covered over with either clay mixed with goat's hair or mixed with cowdung-cake-ashes and horse's dung. The whole wheel is about 3 feet in diameter. The hollow of the stone piece rests on a wooden pivot fixed in a slab of stone and it is on this pivot that the wheel moves. At least at one place in Gujarat, in its north-western corner, viz. at Patan, the potters use a wheel which is all solid, the clay-mixture completely covering the spokes and the spaces between them. It is noteworthy that Patan potteries are far-famed in Gujarat and Kathiawar.

In the United Provinces there are three types of wheels in use. The one most restricted in its use, being confined to Hamirpur, is a clay disc to the under-surface of which is attached a heavy sphere of lac with its curvature resting on the ground⁵. The second kind of wheel is made of black earth mixed with goat's hair and dried in the sun⁶. It would appear that it is solid

⁴ *Ibid.*, Vol. VI, "Pottery and glassware of Bengal," p. 101.

⁵ *Journal of Indian Art and Industry*, Vol. VII, "Pottery in N. W. P. & Oudh, pp. 3-4.
ibid.

and is the more commonly used. Sometimes it is strengthened by cross pieces of wood let into its under-surface. In the centre on the upper side a slab of stone with a hole in its centre is inserted. It is in this hole that the axle which consists of a wooden or an iron pin fits. This pin is made firm in the ground. The third type which is a slightly different variety of this kind of wheel is in use in Almora District. The base is formed of two cross boughs with small twigs thrown in between and held by ropes, and is covered over with a thick coating of clay. The wheel is sometimes made wholly of wood and also wholly of stone, the latter being generally procured from Mirzapur or Indore⁷. It is clear that they can only be solid pieces.

The Sind wheel is similar to the U. P. wheel in that it is solid and made of unbaked clay mixed with goat's hair. In the centre it has a slab of flint which is one foot in diameter; and the pivot, which is a wooden or an iron peg is let in in a stone slab fixed in the ground, and inserted in a shallow hole in this flint. The unique feature of this wheel is that the outer edge of the wheel instead of ending in the rim is bent downwards towards the undersurface of the wheel and projects there to a foot-length, leaving a hollow space between this projecting portion and the body of the wheel. It is also convex on the upper side.

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⁷ *Ibid.*

II. A NOTE ON KORKU MEMORIAL TABLETS.

In *Man* for February (1936), Major D. H. Gordon contributes an article on certain *Korku Memorial Tablets* which he saw at the foot of a large mango tree opposite to the Tahsil offices at Pachmārhi, the summer seat of the Government of the Central Provinces. The shrine consists of an upright stone with vague carving, and a small platform. Grouped round this shrine are a considerable number of carved wooden tablets. These are roughly hewn from teak in the forest. Such a tablet is ceremonially washed with water, and set up; and "*puja* is done to it by the sacrifice of a goat and of coconuts". "A feast is then made ready which includes the sacrificed goat and *kudai* or *kutki* (a grain), and *gungabhais* (caste fellows) join in". This is followed by "*Khel-tāmāshā*", consisting of taking the tablet and dancing with it, passing it from one another, carrying it on their shoulders. While doing this they sing the refrain—'*Bhale mache kure*'...After the '*Khel-tāmāshā*' the tablet is taken outside the village and set against a tree. The next morning the immediate relatives of the deceased set out with the tablet for Pachmarhi. "The name of the deity of the shrine", Major Gordon informs us, "is *Guru Pitar Deo*, the Teacher, God the father; and the Tablets are called *Deo pitar kā gata*, the memorials of God the father". [Here it may be noted that the correct interpretation of "*Guru Pitar Deo*" would appear to be "the spiritual preceptor, the ancestor

spirits and gods"; and that "*Deo pitar kā gālā* would appear to mean "the memorials of the ancestor-deities."] "Without exception all the tablets have the sun and the moon carved at the top. It is said that these are carved first before any part of the the design as being the foremost of the deities. Most of the tablets are about two and a half feet high, and two and a half inches thick. They have panels of horse-men, or of men dancing; and the sides are cut with a chevron pattern. As to the origin of these tablets, Major Gordon writes:—"They appear in my mind to be connected with certain stone pillars. Seven of these pillars are to be found grouped under a tree at Tāmia, a Korku village, twenty miles in a straight line from Pachmarhi. The shrine-stone and other fallen fragments at Pachmarhi appear to be of a similar character. These stone pillars bear medallions depicting either men with swords and shields, men with bows and arrows, men in pairs fighting, or men on horse-back. More important still, though it is a feature of land-grants, memorials, *etc.*, all over India, these pillars nearly all bear the sign of the sun and the moon. Nothing definite seems to be known about them locally, but they are very similar to the class of 'Virgal' or hero-stones. With, however, the remains of very similar stone-pillars at Pachmarhi in conjunction with these wooden tablets, I feel certain that the latter are derived from the former. Further, many of the

tablets at Pagāra and a few at Pachmarhi are square and carved on all four faces".

In the course of an anthropological tour in the Betul district of the Central Provinces, I happened to come across this class of Korku memorial tablets and made some enquiries regarding them. I particularly examined and made enquiries about a collection of these tablets under a large tree outside the *basti* of the Korku village of Āmdhānā, about two miles from the headquarters of the Shāhpur thānā in the Betul District. On the public road from Betul to Itarsi, I also saw another such collection of memorial tablets under a tree on the boundary of village Kundi. An individual tablet, I learnt, is called a *munḍa* and each collection of *munḍas* is called a *Jagar* by the Korkus of the Betul district.

The ceremony with which such a tablet is put up is also called a *Jagar* ceremony by the Korkus of these parts (who belong to the Bhawaria branch of the tribe), and *Sidoli* by the Bondoi branch. The Korkus of the Pachmarhi side (Chhindwara district) belong, I was told, to the Bondoi branch. I collected the following account of the procedure of the *Jagar* ceremony among the Bhawaria branch of the Korkus living in the Shāhpur thānā of the Betul District. My principal informants were the following Korku adult males: Happa, Dorakshah, Sobbo, and Sohondiha all of the Beīhe clan or *gōt* of village Āmdhānā; Samlā and Rain Parsād (both of the *Silu gōt* of village Āmdhānā), and Lari (of the

Ātkom clan of village Chaprā close to Āmdhānā). The Jagar ceremony is the final funeral ceremony of the Korkus. It may be performed any time after death generally within from about five to twenty years. In the case of well-to-do or important persons it may be individually celebrated within a very few years after death; but generally it is celebrated after several years of the death of the head of a family and, in such a case, one *munḍa* or stake generally serves for that man and all other members of the family who may have died since. Each *gōt* or clan has its own separate *Jagar* by the side of, or, at any rate, not far from, a stream or pool. My informants told me that formerly stone *munḍas* or funereal tablets used to be set up, but now-a-days only wooden tablets. And, in fact, I found two or three stone *munḍas* at the Jagar at Āmdhānā. Each *munḍa* wooden rough-hewn four-sided knob-headed, tablet, about $2\frac{1}{2}$ feet high and $2\frac{1}{2}$ inches wide, carved on tiers of panels on two or three, generally three, sides with rude human figures whether on horse-back or on foot, and one or two sides with chevron patterns incised on them. On the topmost panel on the front side, is carved the figure of the moon represented by a crescent and below it that of the sun represented by a small disc. The principal human figure or figures on a tablet represent, I was told, the deceased for whom the tablet has been set up, the other human figures on it representing the predeceased members of the family. A human figure carrying a drum was explained to me as that of an *Ojha*

or ghost-doctor playing on his drum. For the performance of the ceremony, a large *pinḍi* or boiled rice rolled up in the form of a ball is made and inside it is inserted a bit of *donglā* grass reed to represent the bone of each deceased person in whose name the tablet is being put up. This rice-ball is called *āmlijā-golā*. A goat is anointed on the head with turmeric-paste and then sacrificed, and its blood is offered to the *muṇḍa* which is besmeared with the sacrificial blood and also with turmeric-paste. The *amlijā golā* is thrown into the stream or pool. And thus are the spirits of the departed finally laid so that it may no more return to disturb or annoy their surviving relatives. So this is an occasion for rejoicing; and the assembled relatives and friends dance to their hearts' content and a hearty feast concludes the proceedings. Women, though not permitted to attend the earlier funeral ceremonies, may take part in the *Jagar* celebration. With regard to the representation of the Sun and Moon, it may be noted that, as my inquiries show, the Korkus do not actually worship or appease the Sun and Moon, but regard them as identical with or representatives of Bhagwān (the Supreme God). They name "*Bhagwanji Chānd-Suruj Kartār*" (God-Sun-Moon-Master) as one Supreme Deity—the "*Kartār*" or "Lord" of all.

Major Gordon ascribes the origin of the *korku* memorial tablets to certain ancient Hindu memorial stone pillars and land-grants found in different

parts of India, and points out the similarity of the carvings on the Korku memorial tablets with those on the stone-pillars and concludes that the latter are derived from the former. He goes further and suggests some possible connection of these with the rock paintings on the Mahadeo Hills.

Now, It may be printed out that the practice of setting up stone memorials in honour of the deceased is an ancient custom with some of the Muṇḍā tribes, such as the Muṇḍā, the Hō and and the Bhumij of Chota Nagpur. Some tribes such as the Pahiṛā of the Dolma hills in Chōṭā Nāgpur incise human figures representing the deceased on the stone tablets covering the graves. These incised human figures are generally depicted as carrying some weapon or instrument or other thing of which a particular departed person was fond or in the use of which he was an expert. Thus, a noted hunter is depicted as carrying a bow and arrow or in a few cases even a gun, a noted muscian is shown as carrying a drum, and so forth. And it would appear likely that the Korkus who once used to put up stone memorials to their deceased such as the Muṇḍās, Hōs and some other cognate tribes still do, subsequently took to representing on them the figures of the departed as their congeners—the Pahiṛās of Chota Nagpur—now do. The Hindu land-grant stone-pillars, and the hero-stones (*Virgal*) and *Sati*-stones in their country may have in time prompted them to make rude carving on stone memorial tablets but, finding this

difficult and expensive, the setting up of wooden tablets came to be substituted for the older practice of erecting stone memorial-pillars a few of which may be still seen in these *Jagars*. The similarity of the stylised carvings on the Korku memorial stones (as well as the Pahiṛā grave-stones) and the wooden memorial tablets, on the one hand, with certain prehistoric (?) rock-paintings may perhaps be explained by the rude workmanship of the Korku carver who incises the figures with a rough chisel (*bidni*), though it may not be improbable that the authors of the rock-paintings of the Mahadeo Hills might have been the remote ancestors of the Korkus themselves. The hero-stones and land-grant-stones, it may be noted, are not very many centuries old and, so, could not have served as the models for the Korku funereal stone-tablets: These latter would appear to have come down to them from their prehistoric ancestors who used to erect menhirs and put up dolmens over the graves of their dead as some Muṇḍā tribes do up till now.

S. C. Roy.

INDIAN ETHNOLOGY IN CURRENT PERIODICAL LITERATURE.

In *Man* for March, 1936, Mr. J. K. Bose contributes an article on the very interesting *Nokrom system of the Garos of Assam*. The *Nokrom* is the favoured son-in-law of a Garo, being allowed the privilege of living in the house of his mother-in-law and of becoming, on the death of the father-in-law, the manager of his property through his wife. Generally a sister's son is selected as *nokrom* by the father of a favoured girl (usually the youngest). If his mother-in-law survives the father-in-law, the *nokrom* is bound to marry the mother-in-law, failing which his claim to the control over the property ceases. In most cases, however, the mother-in-law is past the age of child-bearing when her husband dies, and a sham marriage-ceremony is gone through with the son-in-law without any question of sexual relations with him. When the *nokrom* dies, his wife is allowed remarriage but only with an unmarried younger brother of her dead husband and, in case all her deceased husband's brothers are already married, with a man of her late husband's *mahari* or sub-clan.

In *Folk-lore* for December, 1935, Mr. A. M. Hocart in an article on "The Purpose of Ritual" in which his theme is that Ritual is a social quest and a *quest for life*, refers to certain passages in Book X of the Rig Veda to show that the object of the funeral hymns of the Rig Veda is

to seek "life for both deceased and survivors, so that the deceased may be "reborn in a descendant with a full life". In an article on "The Cult of Animals" in the same number of *Folk-lore*, Lord Raglan seeks to show that all food taboos (even of modern civilised nations) arose with the development of magic, whether the tabooed object be the sacred cow of the Hindus or the sacred horse of Edglishmen.

In *Indian Culture* for January 1936, Mr. Nani-mādhav Chaudhury writes a note on what he calls "A curious Cult in North Bengal", "but what is nothing other than an instance of the practice of rag-offering more common in the northern and central parts of India. This consists of tying up rags to certain 'sacred' trees either by way of transference of a disease or by way of appeasing the spirit of the tree or with a view to obtaining some boon from the tree-spirit.

In the *Journal of the Bihar and Orissa Research Society* for 1935, Mr. W. F. de Hevesy contributes an article on "Munda Tongues Finno-Ugrian," in which he seeks to show by certain resemblances in vocabulary and grammatical forms that the Muṇḍā languages belong to the Ugrian sub-division of the Finno-Ugrian branch of the so-called Uralian stock.

In the January (1936) number of the same Journal, Rai Bahadur S. C. Roy gives an account of the past migrations of the Khārīā tribe whose principal habitat is at present in Chōṭā Nāgpur and the adjoining Ōṛissā State of Mayurbhanj and the Central provinces State of Jashpur. The same writer contributes a further article on "Ethno-

graphical investigation in official Records "and publishes with explanatory notes one such official Report of the year 1839 regarding the people, customs and habits, and land-tenures of Chōṭā Nagpur.

In the *Quarterly Journal of the Mythic Society* for July-October, 1935, Mr. L. V. Ramaswami Aiyar contributes an article on 'Dravidic Sandhi and Mr. S. C. Mitra continues his "Studies in Plant Myths" and "Studies in Bird-Mythis".

In *Indian Culture* for April, 1936, appears an article on "Intelligence and Achievement Tests" which is a summary of a lecture delivered Mr. J. M. Sen, at a symposium organized by the Bengal Education Week in February 1936.

In the *Indian Historical Quarterly* for December, 1935, Dr. Panchaman Mitra contributes an article on "Racial and Cultural Interrelations between India and the West at the dawn of the Age of Copper".

In the *Journal of the Asiatic Society of Bengal*, 1935, No. 2, Kunwar Muhammad Ashraf contributes a long article on "Life and conditions of the People of Hindusthan (1200-1550 A.D.), mainly based on Islamic Sources".

In the *Modern Review* for March, 1936, Prof. J. C. Archer contributes an article on *Caste: Some Contrasts and Parallels*, in which a plea is put forward for a re-examination of caste fundamentals with a view to starting a campaign to change the very mind of India and reconstruct the pattern of her social life, and transform caste by the nobler ethics of religion.

NOTICES OF BOOKS.

Anthropology and Ethnology.

Reports of the Cambridge Anthropological Expedition to Torres Straits. Vol. I. *General Ethnography*.—By A. C. Haddon. (Cambridge University Press, 1935) pp. xxiv+421. with Plates diagrams and Maps. 40 s. net.

This splendid volume completes one of the great classics of ethnological literature. The volume begins with an Introduction in which Dr. Haddon gives a summary account of the origin and methods of his investigations. He says, "since 1888 I have consistently tried to recover the past life of the Islanders, not merely in order to give a picture of their former conditions of existence and their social and religious activities, but also to serve as a basis for an appreciation of the changes that have since taken place. It has generally been acknowledged by me that ethnologists should study the existing conditions of backward societies, but to interpret these it is first necessary to know from what they have originated and then to trace the successions of new contacts and their influences on the people. I must leave it to another to describe this metamorphosis". Part I gives a Historical Sketch of the area, comprising an account of the Early Voyagers, the Pearl-shelling Industry, the Bêche-de-mer and Trochus Fisheries, and Missionary Enterprises; an account of the Geography and Geology of the Is-

lands; and the Ethnography of the Various Islands. Part II deals briefly with the Ethnography of Neighbouring Areas (Western Papua, South Netherlands New Guinea, and North Queensland). Part III deals with the General Ethnography of Torres Straits in eleven chapters. The ethnographical section of this volume supplements the information contained in previous volumes. In his summary of the culture history of the Torres Straits, Dr. Haddon writes:—"The evidence seems to point to a people of fairly uniform physical characters having populated the Eastern islands from Dandai. The ethnic history of the Western islands is more complicated: (1) There appears to have been an ancient stock with a strong tendency towards very marked "low" cranial characters. (2) Presumably a later dolichocephalic stock spread from Dandai. (3) Subsequently a new brachycephalic stock came from the estuary of the Fly. This third element has only slightly affected the Eastern Islanders. In their temperament and general behaviour the islanders are distinctly "Papuan" and not "Australian".

"The people of Murat have always had the reputation of being a nomadic people who wandered about the island in small communities in quest of food and did very little tilling. The more northerly Western Islanders have never been gardeners and their, for the most part, sterile soil has not encouraged them thereto. The Central Islanders were also migratory, and it is evident from the nature of their islands that they could have done

little, if any, cultivation, whereas the more isolated Eastern islanders grow plenty of food in their volcanic soil. The economic life of these people is thus clearly conditioned by geographical factors.

"The evidence of the material culture of the islanders is in conformity with that of their physical characters and psychology, as also are the general character of their social institutions and to a very large extent their ceremonial culture. Although certain cult-objects and rites can be paralleled with those of various parts of Melanesia, ethnographical corroborative evidence for a connection between the two areas is of so slight a nature as to preclude any direct connection. Cultural movements from New Guinea to Australia are much more probable than in the opposite direction.

"The intelligence and energetic character of the islanders enabled them to develop what elements of culture they originally possessed and those that they acquired later, into a distinctive culture of their own, and to this the Hiamu evidently contributed to a large extent. I have failed to find traces in Torres Straits of direct influence from Indonesia, although this might have been expected; what parallels there may be can be explained in other ways. I cannot find evidence that Spanish or other early voyagers had any cultural effect upon the natives. At most they supplied them with iron tools and a few trade objects. Their culture was unaffected. The influence of later contact with fishing crews was mainly very disastrous and destructive. During

the past half century or even longer there have been occasional visitors or settlers from Indonesia, 'Manila men' and the like, but they do not appear to have had any cultural influence on the natives. The same applies to the Chinese and to the Japanese. Australian Government control and missionary enterprise since 1870 have had a rapid and profound influence, which at the present time has very materially modified the old culture and certain aspects of it have disappeared. According to tradition these have been numerous cultural movements to Torres Straits from Dandai and between the islands. In all mythologies (and folk-tales) cultural improvements and cultural spreads are usually associated with named persons. It is immaterial whether they existed as such, but it is convenient to employ these names as a concise method of recording the tradition. Unfortunately it does not seem possible to construct even a relative chronology for these events."

The *Reports of the Cambridge Anthropological Expedition to Torres Straits* will ever retain their rank among the best classics in the ethnological literature of the world—as models of ethnographic method and as invaluable treasure-houses of ethnographical data.

Race, Sex, and Environment. By J. R. De la H. Maret. (Hutchinson, 1935). Pp. 342. 21s. net.
The author of this important book has struck

out a new line in the study of anthropo-geography. The general hypothesis running through the book is that a natural selection for an economy of various food-substances has played a very important part in guiding the evolutionary process. The position which the author maintains and supports with a wealth of cogent facts and considerations is that present heredity has been moulded by past habitats; and a combined study of soil-science and mineral deficiency affords a new method of proving geographical and geological conditions to be a main agency in regulating the incidence of natural selection upon animal and human evolution" (p. 41). The greater part of the book is directly concerned with the problem how changes of environment affecting the mineral supply of the soil and food have influenced the evolution of Man.

The author has attempted to correlate various classes of habitat with corresponding types of animal and human physiology, and has particularly drawn a distinction between lime-rich and lime-poor soils and between the differences of heredity governing endocrine activity, physiology and anatomy in each case. "Iodine-shortage might also be expected to encourage slow-growth and foetalization, both of them being characters fully developed in Man". The author attributes the development of the first hominidæ out of large anthropoid apes to iodine deficiency.

The endocrines are explained as devices whereby the more important aspects of the immediate environments of the genes responsible for the later-evolved and ontogenetically differentiated tissues

are prevented from losing their somatic expression and thus falling outside the influence of natural selection. Environmental change is thought able to affect the activity of the endocrines; and so, by altering the genetic 'predominance' between the genes and the subservient tissues, to bring out old, but previously evolved, characters of a sort more likely to be of value under the new conditions. The evolutionary influence of alterations in the size of the population is touched upon. Applying his mineral hypothesis to social and psychological facts, our author would ascribe masculinity to an abundance of minerals and femininity to a deficiency of calcium, and would connect polyandry in the Himalayan regions with iodine-deficiency. In the political field, "an increase in racial femininity, despite its survival-value in the past, is," our author thinks, "a danger to progress, so far as this takes the direction of an increase in the freedom of the will. It is responsible for the lethargy of the economically submerged, but now-a-days politically well-represented, classes; as also for the devastation wrought by war, which has supplemented the work of starvation by calling the more masculine heredity and forcing each generation still further to submit to the sway of an irresolute and fear-ridden mob. Space will not permit a reference to other points discussed or suggested in this volume which is one full of great interest from cover to cover. The book is a very valuable contribution to anthropological science.

Sledges and Wheeled Vehicles.—*Ethnological Studies from View-point of Sweden.* By Gosta Berg (C. E. Fritzes Bökforlags, Aktiebolag, Stockholm. 1935).

In this well-illustrated and well-written book the author investigates certain problems connected with the history of vehicular transport from a Swedish point of view. In eight chapters the author investigates the history of the development of methods of land-transport in Sweden from the single-runner sledge through the built-up sledge and the double-sledge to the slide-car and the cart, the wheel-sledge and the waggon. In the preface our author explains that the reason why he has given "an almost exaggerated concentration on the history of vehicular transport from the Swedish point of view," is "that a general survey, including the Swedish phenomena in its rightful and justifiable connection, might be forthcoming". There can be no question that the author is perfectly justified in the course he has adopted.

History of American Ethnology.—By Panchanan Mitra (Calcutta University, 1933). pp. x+239.

This is a reproduction in book-form of the author's thesis for the Doctorate of Philosophy in Yale University in Ethnic Psychology, during the session, 1929-1930. It is gratifying to note that the first published book on the History of Ame-

rican Ethnology has been the work of an Indian scholar. Dr. Mitra has lucidly traced the history of American anthropology from its beginnings till the present. The eminently objective and regional evolutionary treatment of the Science by the British School, has been well brought out by the author. The author observes in conclusion,—“It has been highly fortunate for America that it had ready at hand highly different groups of the American Indian, so that its contributions on Man and Culture have been free from the broad generalizations of Frazer or Elliot Smith, and have yet made a definite contribution by discovering the new plane of psychological activities, *viz.*, culture”.

The Wild Tribes in Indian History.—By B. A. Saletore. (Punjab Sanskrit Book Depot, Lahore, 1935) pp. xv+163.

Dr. Saletore has placed students of Indian ethnology under a debt of obligation by collating references to pre-Āryan wild tribes in ancient Indian literature and also in later Indian historical literature. Though his identifications are not in all cases free from doubt, and although some of the names such as ‘Savara’, ‘Pulinda’, *etc.*, may probably refer each to a group of allied tribes rather than to an individual tribe, yet Dr. Saletore has done a valuable service to Indian ethnology by collecting, collating and discussing a mass of data relating to ancient Indian Wild tribes.

The Conquest of Death : An Eminent Step in Evolution.—By Annie C. Bell (Beauchamp, 1935). pp. 432. 12s. net.

This is a thoughtful and thought-provoking book. Though many readers may not assent to some of the views, reasonings and assumptions of the author, most readers will appreciate the need of emphasising, as she does in this book, the idea of "a spiritually evolving universe," "man's Mind-derived power of conscious self-evolution to higher states of being" and "man's unfolding conceptual reflection of the spiritual cosmos". The following extracts will give the reader some idea of the author's view-point and reasonings :—

"The interdependence of mind and body is irrefutable. The vast potentiality of the mental equipment of the social body when all are in agreement in any *one point*, in contrast to the limited power available in the cell society of the individual human body, is sufficient proof of the vast unutilized mental-moral resources within man's present reach. The power only needs to be applied to the science and art of self-government for man to gain control over any unbalance in the inter-related whole of the cell society of his body....The increasing dominance of mind evidenced in human experience has brought within reach the end of the conflict between the seeming rival powers of life and death. Accumulating evidence furnishes the needed proof of this saving truth of Life in the interdependence of mind and body. *Mind* is dominant in final decisions governing organic action, regenerative change, and transformation. Man as a free moral agent can choose to remain associated with those who accept as inevitable a *death-process* and share with them on their field of experience the stages of degeneracy and the *discord* that it involves up to its climax. Or he can unite thought and active endeavour with those who adopt a *Life Process* and share with them the directly opposite experience in its stages of unfoldment of Life's infinite possibilities.

But in progressive evolution one man cannot permanently isolate himself from his kind" (pp. 32-34). "With the growing ascendancy and emancipation of mind 'the largest fact in evolution,' it follows that the achievement by man of complete control of his own body lies in the increasing development of Mind-derived power, to be individualized in scientific self-government of the body...A scientific, social organism, functioning collectively as also individually, affords the means of periodically raising to a new level a common standard of progressive normality; of conserving all the good gained; of outstripping preconceived time and space limits; of sifting chaff from wheat; of evolving new types". (p. 52).

"The human body presenting a symbol of good and evil, discord and decay, and beauty and ugliness, life and death, is the abnormal product of evolutionary thought forces that have been misplaced and harnessed by common consent to mind-body degeneracy, inseparable from a death-process conceived to be inevitable...The spiritual initiative has been held in the background by the majority rule of crudely constructed governmental systems; and yet in the unchanging order of evolution everywhere symbolized, it has always remained for a minority to initiate the unfoldment of a new ideal. Such *initiation* and *collective response* are essential to effect an actualization of the conscious changes needed in the adaptation of mind, body, and environment. And such changes are obviously inevitable in a progressive unfoldment of life on new standpoints of existence in the course of cyclic, spiritual evolution" (pp. 423-5). "Death will soon be generally recognized as a penalty collectively as individually maintained by mankind's own law of apathetic assent to bodily dissolution. The death-process has continued through misapplication of the creative element of common consent, but its false nature will be seen to be as unreal as is the night dream on awaking, when its opposite, the true and demonstrable Life-Process, is recognized" (p. 426). "Despite the inverted presentation of life in all species, through embodiment of the ancestral cell death-process of degeneracy, there is, nevertheless, inherent within each individual unit of its species the latent power of perception and choice of clinging

to the old and outworn or advancing Spirit-ward in line with the higher ideal" (p. 428). "The unfolding Life-Process that can abolish death is vital enough to kindle a world-wide enthusiasm, sweep away falsities, fears, and illusions, change the picture of despair and the continual evidence of degeneracy ultimating in a death climax, to a view of life so entrancing as to make each stage of fascinating interest and anticipation" (p. 430).

It is this very fulfilment [of the primary duty or *moral* obligation close at hand, for the actual good of the greatest possible number] that alone "evolves the needed collective dominance of *Mind* over body in the periodic Life-Process of immortal being" (p. 432).

The addition of an Index to the book would have added to its value.

Religion.

A. Vincent, *Le Judaïsme*. (*Librarie Bloud et Gay, Strasbourg*. 1932) pp. 234.

The book under review is a welcome addition to "Bibliothèque Catholique des sciences Religieuses"—a series of excellent theological treatises now being published by Librarie Bloud et Gay of Strasbourg. An attempt has been made in this book to explain as clearly as possible what Judaism truly teaches us and wherein lies the essential difference between the Jewish and Christian dogmas. It is divided into ten chapters which respectively deal with 'The End of the Jewish Autonomy' (ch. I); 'Rabbinical Literature' (ch. II); 'The Torah' (ch. III); and the cream of the book perhaps lies in the remaining chapters in which the author dwells upon such important aspects of Jewish theology as 'The Dogmas in Judaism,'

(Ch. VI); 'The Man and Destiny' (Ch. VII); 'Jewish Morals' (Ch. VIII); "The Mystic life in Israelite" (Ch. IX); and finally, "The Public and Private Cult' (Ch. X). The author who is a Lecturer in the Faculty of Catholic Theology in the University of Strasbourg deserves our gratitude for placing before us a well-documented, lucid, handy volume on one of the most ancient religions of the world which students of Jewish and Christian theology will find very informative and useful.

Popular Hinduism: The Religion of the Masses.—By L. S. S. O'Malley. (Cambridge, University Press, 1935) pp. viii + 246. 7s. 6d. *net*.

In this handy volume the author has succeeded in giving a fairly correct and eminently readable account of the great variations of religious belief and practice as well as the common fundamental characteristics in that conglomerate of cults and creeds which constitutes Popular Hinduism. We should like to see this book in the hands of all officers, particularly those who have to deal with the executive and judicial administration of the country, as also all foreign business men, educationists, and, in fact, all who have to deal with the Hindus, for if they carefully read this book much incorrect and unjust notions and prejudice which stand in the way of mutual understanding will be removed. Foreign travellers who desire to know something of the people, would also benefit by reading this book which will help them in forming a correct appreciation of many religious customs and beliefs.

The Rig Veda as Land-Na'ma—Book.—By Ananda K. Coomaraswamy. (Luzac-1935).

pp. 39. Price 3s. 6d.

In this thought-provoking little book, the talented author seeks by analysing the content and tracing the origin of a few constantly recurring and characteristic terms in the Rig-Veda (e.g. *Arya*, *Karshani*, *Kṛṣṭi*, *Nau*, *Panchjanāh*, etc.) to show that that collection of hymns is, strictly speaking, devoid of any historical content whatever, although "historical events analogous to those alluded to in Nordic myths" may have taken place, for "history is always enacted in the pattern of the ultimate reality enunciated in metaphysical tradition". "Before the pillar, the tree; before the wheel, the *swastika*, before the plough, the planting-stick". As for the word 'Ārya,' for example, our author takes its root meaning (from ṛ, to, go, rise up) to be "pioneer" in the American sense, where the first settlers are most highly honoured; and as for 'Karshani' and 'kṛṣṭi' Dr. Coomaraswamy takes its root-meaning to be "ploughing", "tilling", "tilth" and, secondarily, "folk" or "people," as typically agricultural. Although scholars may differ as to the proper interpretation of some of these words, the author's interpretations and observations will stimulate further reflection and research. The pictures and the notes add to the value of this excellent little book.

Archaeology.

Matter, Myth, and Spirit : or Keltic and Hindu Links.—By Dorothea Chaplin. (Rider, 1935) 8s.6d.

Sir Grafton Elliot Smith, in a short Preface to this book, writes :—"In her wonderful book Mrs. Chaplin has given the first fruits of her preliminary reconaissance in the Vedic literature of India and the Keltic folk-lore of the extreme West for the recovery of much ancient world history. The chief interest of her work is the practical demonstration it affords of a new method of unveiling the remote antiquity of mankind".

Though students may not accept some of her identifications of proper names in mythology and ancient literature, there can be no two opinions of the wide reading, hard thinking, and patient industry which Mrs. Chaplin has brought to bear on the fascinating subject-matter of her researches. She has utilised her tours in India and elsewhere and her wide reading to the best advantage. Her faithful account of Indian *Pandits* and *Adhyāpakas* of the old school testifies to her earnestness for discovering the truth (pp. 174-177), though she does not appear to be accurate in attributing the foundation of the Hindu Caste system to Manu : Manu merely recorded and systematised existing social facts and the ideal by which Hindu sages sought to give them a spiritual orientation. We trust future researches by herself and others on the tracks chalked out by her will add considerably to the rich harvest she has already gathered and made available for students.

A Guide to the Archæological Museum at Gwalior.—By M. B. Garde. (Dept. of Archæology, Gwalior State. 1928). pp. 52 and 18 plates. Price Re. 1/2 as.

This well-illustrated neat little guide-book gives a fair idea of the exhibits which have been collected from different places of the Gwalior State itself. The exhibits illumine the history of Gwalior from the 3rd century B.C. to the 17th century A.C., and the Museum is one of the very useful institutions which testify to the enlightened administration of one of the most progressive of the Indian States. Situated as Gwalior is there can hardly be any doubt that systematic search will bring to light finds also of prehistoric artefacts and perhaps skeletal and other remains of great historical value; and we would earnestly draw the attention of the Gwalior Archæological Department to this line of of research.

Medieval Indian Sculpture in the British Museum.—By Ramaprasad Chanda. (Kegan Paul, 1936). pp. xiv+77, with 24 Plates. 10s. 6d. *net*.

This book describes and illustrates a number of the most important specimens of Indian sculpture preserved in the British Museum. The explanations given by the author of the meaning and motives of the sculptures will greatly help the visitor to the Museum as well the reader of this illustrated monograph in understanding, appreciating and enjoying the sculptures in question or their reproductions in this book.

The Indus Civilization.—By Ernest Mackay. (Lovat Dickson, 1935) pp. viii+210. 6s. *net*.

This is a handy popular account of the most momentous explorations and discoveries in the valley of the Indus of one of the earliest civilisations in the world. Having himself been in charge of the excavations at Mohenjo-Daro for six years on behalf of the

Government of India, the author writes with first-hand knowledge, and even those who possess copies of the larger work of Sir John Marshall would like to have at hand this handy volume which gives a succinct yet comprehensive account of the Indus civilisation. The illustrations (plates), though few, are representative and judiciously selected.

Indian History and Economics.

Asoka.—By D. R. Bhandarkar. (Universiey of Calcutta, 1935) pp. xiii + 346.

This is a valuable contribution to Indian historical literature. In this scholarly volume the author gives us the results of his intensive analytical and critical study of the epigraphical records of the great Indian monarch. In eight well-written chapters, dealing respectively with Asoka and his Early Life, Asoka's Empire and Administration, Asoka as a Missionary, Social and Religious Life, Asoka's Place in History, and Asoka's Inscriptions, Dr. Bhandarkar has pieced together as vivid a picture of one of the greatest figures in Indian history as available materials would permit.

A Study in the Economic Condition of Ancient India.—By Pran Nath. (Royal Asiatic Society, 1929) pp. viii + 172.

This book formed the author's thesis which was approved for the Degree of Doctor of Science (Economics) in the University of London. It deals with the Territorial Divisions in Ancient India; Prices; Population; the Land-owning classes; the Labouring Classes and their standard of Living. The author has laid under contribution a large amount available literary sources of information, and presented a scholarly, critical and reliable account of the economic condition of ancient India.

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PROBLEMS OF THE RACIAL COMPOSITION OF THE INDIAN PEOPLES.*

By

H. C. CHAKLADAR, M.A.

Half a century has elapsed since Sir Herbert Risley, with a view to a racial analysis of the people of India, began about 1884 to have anthropometric measurements taken of them by certain assistants to whom he had given a training himself. Six years later, in 1890, this great pioneer of ethnic investigations in India published a summary of the measurements thus taken, of 87 tribes and castes of Northern India, including Bengal, Bihār, Chōṭā Nāgpur, the United Provinces, and the Punjāb, in the *Journal of the Anthropological Institute of Great Britain*, under the title, '*The Study of Ethnology in India*'. In this same paper he proceeded, on the basis of these anthropomorphic data, to classify the people living in this area into three main types which he provisionally named *Aryan*, *Dravidian*, and *Mongoloid*, and Risley assures us that this racial classification of his of the

* *Presidential Address to the Anthropological Section at the Session of the Indian Science Congress, held at Indore, January, 1936.*

Indian peoples was accepted by the European scientists of the time.¹

The detailed anthropomorphic data referred to above were published in India in 1891, in two volumes, and in the years following, Risley had a similar anthropometric survey carried out in Baluchistan, Rajputana, Bombay, Orissā, and Burma. In the Madras Presidency, anthropometric data were collected by Thurston from measurements taken by himself, 'in order to eliminate', as he says, 'the varying error resulting from the employment of a plurality of observers'.² Holland contributed some data for the Coorgs and Yeruvas of Southern India and the Kanets of Kulu and Lahoul. Besides, Waddell measured about 600 individuals belonging to 33 tribes of the Brahmaputra valley, and he thus speaks of his method: 'The measurements were all taken by me with a set of instruments made by Collin of Paris. Scrupulous care was ever exercised to secure precision in these anatomical records, and also to exclude from the series every individual suspected to be in any wise impure in type. The data thus laboriously obtained are therefore necessarily more trustworthy than those published in regard to a few of those tribes on the Bengal border by Mr. Risley, whose measurements recorded in his "*Castes and Tribes of Bengal*" were made by a Bengali Hospital Assistant, who wandered about measuring individuals under nobody's immediate supervision'.³

¹ *Census Report of India*, 1901, vol. I, p. 494.

² *Castes and Tribes of Southern India*, vol. I, p. xli.

³ *Journ. As. Soc. Beng.*, 1900, Part III, p. 73.

Dr. Waddell, by virtue of his knowledge of anatomy, was no doubt much better qualified than Risley's assistants to take somatometric measurements, and his measurements also possess the advantages of having been recorded by a single investigator, while Risley's data were obtained by different workers in different provinces. But he naively admits a serious defect in his method which detracts from the scientific value of his measurements, *viz.* that he introduced the principle of selection in it, in common with Risley. The latter instructed his assistants "in measuring the higher castes to reject persons of very black complexion and with very broad and depressed noses, as in such cases there is at least a suspicion of the intermixture of low-caste blood. Similarly among the lower castes, men of very fair complexion and high-caste type of feature should be rejected. The object is to determine the standard type of each caste, and for this purpose individuals of clearly exceptional colouring and feature should be excluded".¹

Another defect that mars the scientific value of these measurements is that many of the samples of all these investigators were too small to afford any reliable data for comparison with other ethnic types, and Waddell's series suffer most in this respect. Only in the case of one tribe, *viz.* the Kōch, does the number of individuals measured exceed fifty, while in most of the others it falls below 20, and even below 10 in some cases, and of one tribe he had measured only a single individual. We must, however, appreciate the difficulties under which Waddell worked;

¹ *Journ. As. Soc. Beng.*, 1893, Part III, Appendix, p. 1.

he was measuring mostly savage tribes in the wild glens of a mountainous district, and we must thank him for the few measurements recorded by him in this unfavourable region. Since his time very little anthropometric work has been done among these wild peoples, though our knowledge about the social organization and religious beliefs of many of them has been considerably augmented. The Anthropology department of the Calcutta University has been sending workers among these wild peoples, especially Nāgās and Kukis, and a few samples including a hundred or more individuals in each have been obtained.

Thurston's series also are not most of them large enough for scientific purposes: the size of no one of his samples goes up so high as one hundred. Only of the Todas did he measure as many as 82; of 19 other samples the number lies between 50 and 60, and the remaining 59 out of the 79 tribes or castes measured by him, have less than 50 individuals each, and 11 of these again go down below 25. Then again, Thurston has given only the average values and not the individual measurements themselves, so that for scientific analysis his record is not of much worth.

Risley's samples are much better in size: one goes up to 185, 35 lie between 100 and 109, and 21 between 50 and 99; but the remaining 30 series are too small, and 14 of them go down to even below 20. Though some of his samples are fairly large, quite a number of them are of inadequate size. Risley could certainly have improved the size of his samples.

Above all, however, it has to be borne in mind that the entire mass of anthropological data thus

collected was too inadequate to determine with any degree of accuracy the racial composition of 353 millions of peoples, speaking 225 different languages apart from dialects, scattered over an area of eighteen hundred thousand square miles, 'greater by 12,100 square miles than the whole of Europe excluding Russia proper, Poland and Finland' (as Risley himself points out¹), and at the same time divided into races, tribes, castes, sub-castes and sects that make up a thousand or more endogamous groups that do not intermarry. For determining the racial constitution of the Swedish people, forming a fiftieth part of the total population of India, Retzius and Fürst, in the closing years of the nineteenth century when Risley was collecting his materials, proceeded to work on the measurements of 46,000 individuals, and yet again H. Lundborg and F. J. Linders found it necessary to revise the data by fresh measurements taken on 47,387 subjects, that is, almost the half of the male population of Sweden between the ages of 20 and 22.² For about a tenth of the population of India, Livi, working about the same time as Risley, obtained his average cephalic index of the Italian peoples from head-measurements taken on 294,271 individuals, and for his stature averages he requisitioned a total of 1,350,799 subjects.³ In comparison with the abundant material thus available for these and other European countries, the Indian data thus far collected sink into insignificance.

¹ *Census Report of India*, 1901, I, p. 12.

² *The Racial Characters of the Swedish Nation*, 1926.

³ *J. R. A. I.*, 1918, xiviii, pp. 81-82.

From this scanty and inadequate anthropometric material Risley proceeded in the *Census Report of India* for 1901 to formulate his sevenfold classification of the Indian peoples. Besides the three racial types distinguished by him earlier—the Āryan, the Dravidian, and the Mongoloid—Risley determined three mixed types, the Āryo-Dravidian, the Scytho-Dravidian, and the Mongolo-Dravidian, supposing that they arose from a blending or mixing of two out of the former three varieties. Moreover, he proposed a seventh type, the *Turko-Iranian* which as a racial designation was rather unhappy, implying, as it did, that the Turk and the Iranian represented two primary stocks of mankind. This classification has been assailed on all sides and has been rightly rejected by anthropologists, though it makes its appearance in writings by non-anthropologists and misleads the lay reader. Risley's description of the round-headed people on the North-Western Frontier as Turko-Iranian stands condemned by its very name as we have already seen, and it does not indicate a correct delineation of their physical features; the people of Eastern India, of Bengal and Ōṛissā he called Mongolo-Dravidian, although they have none of the characteristic Mongoloid features; the inhabitants of the western littoral and Coorg he designated Scytho-Dravidian, supposing that the Scythians had Mongoloid features, which most probably they had not, and besides, the Scythians had never penetrated so far to the south as Coorg, nor was their occupation in Kathiawar and the Konkan coast of sufficient duration to have produced any lasting influence upon the physiognomy of the people. The Indo-Āryans he

confines to the Pānjab, Rājputānā, and the Kāshmīr valley, although speakers of Āryan languages occupy in India a vast area outside this tract, and the people of the Kāshmīr valley he would have found to belong to a different type if he had only measured them. The type-names *Āryo-Draviḍian* and *Draviḍian* are no more exact than the others. In the Draviḍian type Risley includes all the peoples from the Vindhya to Cape Comorin and from the Aravalli Hills to Rājmahal. Many of these peoples do not speak languages of the Draviḍian stock at all, and the physical features of a large number of them are quite distinct from those of the Draviḍians proper. Long ago Sergi and Deniker had already pointed out that Risley's Draviḍians comprised two distinct types, one with a long head, a medium stature and a narrow (leptorrhine or mesorrhine) nose, and the other also with a long head but having a short stature and a wide nose. These two types are quite distinct in their physical features, in their culture, and in their origin.

The second type referred to above has been called Pre-Draviḍian by some, but this name, coined from the theory of their arrival in India before the Draviḍians, has been found to be quite unsatisfactory. This people, who are perhaps rightly considered to form the basic substratum of the whole Indian population, offers us our first great problem of racial classification. We are not yet quite sure about their distribution in India itself, about their affinity with other people outside India, and about their origin, and the worst of it is that our information about them is very scanty. Their languages have not, for the most part, been properly studied, and very few an-

thropometric measurements have been taken amongst them. Anthropologists have to fall back upon Thurston's averages which, as we have seen, are so inadequate and, in many instances, worthless for scientific analysis. Only four tribes of Southern India have been carefully measured in connection with the last Census by a competent anthropologist, Dr. B. S. Guha.

Owing to Risley's misapplication of the name Dravidian to peoples belonging to different racial stocks, the greatest confusion prevails in anthropological writings about the peoples of Southern India. The Dravidians of one writer are included among the Pre-Dravidians of another ; when reading the writings of early authors like Huxley or Sir W. Turner, or of present-day workers like Morant, or even of Malone and Lahiri who published the results of blood tests of 589 Dravidians in 1928, we often have grave doubts to which of the two South Indian types their Dravidians belong. The Dravidians of Haddon are not exactly the Dravidians of Giuffrida-Ruggeri. Dr. J. H. Hutton, who has made a serious attempt in the latest Census Report to provide a new classification of the peoples of India consistent with our present knowledge about them, has not been able to clear up this Dravidian-Pre-Dravidian tangle, but he has made confusion worse confounded by using, at the suggestion of Colonel Sewell, a fresh designation, *Proto-Australoid*, for the primitive peoples of India when their affiliation with the Australian people has not been placed beyond all doubt. Zuckerman, in his Bulletin on the Adichanallur skulls, makes it quite clear, by quoting almost all the reliable authorities

who have dealt with South Indian craniological material, that "craniological evidence derived from the present populations of the Dekkan does not support the hypothesis of a Pre-Dravidian racial stock whose representatives are, amongst others, the Australians, the jungle tribes of Southern India, and the Veddahs of Ceylon. It is difficult, however, to decide whether craniological evidence is a fundamental criterion of race; if it were, the hypothesis of a common stock for the jungle people of the Dekkan and the aboriginals of Australia would be untenable" (p. 19). Then again, Sewell's theory adopted by Hutton, of the origin of the Pre-Dravidians from Mesopotamia, and ultimately from the Palestine Man, on the authority of the Kish skulls, stands condemned by the great difference in the nasal index between the Kish skulls N.I. 44.4 on the one hand, and the skulls of Indian primitive types—Veddah (N.I. 52.7), Adichanallur (N.I. 51.62), and the Veddaic skulls at Mohenjo-Daro (N.I. 51.06). The Al-U'baid skulls (N.I. 49.2) which Sewell requisitions as a connecting link between Kish and the Indian skulls, have entirely to be left out of this series as there is no trace in them, according to Keith, of alveolar prognathism which is a common feature of the Kish and the Indian skulls. In the light of these facts, Sewell's theory, adopted by Hutton without question, 'of the derivation of the Proto-Australoid type in India from a leptorhine western type through a series of climatic modifications' (*Census Report*, 1931, I, p. 443), is far from convincing. Perhaps we have to look for their origin to the East, to *Homo primigenius soloensis*, constitut-

ed from two skulls recently discovered at Ngandong in Java (Oppenoorth, W. F. F. : *Homo Javanthropus Soloensis*. Een Plistocene Mensch van Java, 1932); such an alternative theory would solve many of our problems, but no sound theory can be formulated until we have more anthropometric material derived from an extensive series of measurements, both of skulls as well as of the living. Besides, numerous Palæolithic artefacts that can easily be graded into several stages of development have just now been discovered in Kāshmir by the members of the Yale University expedition, and we have to wait expectantly for their report. Let us hope that they will light upon some skeletal material which is as yet wanting. Moreover, Mr. Mackay has dug up a number of skulls very recently in early strata in the Indus Valley. An attempt should also be made to dig up the graves still waiting to be excavated at Adichanallur itself.

The affinity of the South Indian primitive people with the Veddahs of Ceylon is unquestioned, and therefore I would propose that they be simply styled *Veddaic*, to save confusion, at least until we have a clear comprehension of their composition.

Risley's Dravidians require to be divided still further; the primitive tribes of Chōṭā Nagpur who have been called *Kolarians* by some writers, appear to have distinct features distinguishing them from the Veddaic tribes further south, and should be placed in a class apart. Haddon, who places them in the Pre-Dravidian racial group, points out, "There is something in the facial appearance of many Kolarians which enables an observer to pick out a typical inha-

bitant of Chōṭā Nāgpur from a crowd of southern Dravidiāns" (*Races of Man*, 108).

There is a still futher problem that has risen with regard to the racial composition of the Dravidiāns proper, that is, the non-primitive speakers of Dravidian languages. Thurston's averages, meagre as they are, had already shown the presence of two racial types among them—one long-headed and the other round-headed, and this has become very clear from the measurements taken by Dr. B. S. Guha in connection with the last Census. The brachycephals among them appear to possess the same physical features as the Āryan-speaking brachycephals of Eastern and Western India. Elliot Smith had pointed out in his *Essays on the Evolution of Man* (1927) that one of the Adichanallur skulls sent to him for examination "conforms more nearly to the racial type that is known as Mediterranean, which is so largely represented in the present population of India" (p.130), but in a note appended to Zuckerman's Bulletin on the Adichanallur skulls (1930), he adds, "It is not of pure Mediterranean type, the breadth of the cranium and the flattening of the occiput suggesting the possibility that it may be an example of the type I have called 'Maritime Armenoid', a branch of the Alpine Race that is found as one of the ingredients of the racial mixture known as Dravidian" (p. 1).

After the elimination of the Veddaics and the Alpines from the speakers of the Dravidian languages we get a remnant of dolichocephals with a narrow nose and medium stature who have been defined as the Dravidiāns proper by Haddon; but the problem is,

should we call this type by a linguistic name at all? Did they speak a Dravidian language when they first entered India, or did they assume it in Southern India? They have been supposed to have been the most numerous at Mohenjo-Daro, but the writings there have not been read yet and we know nothing as to what stock that language belonged to; whether it had anything to do with the Dravidian languages is doubtful, the script itself having various degrees of affinity with ancient scripts from Crete to Easter Island. We may call this type the Indo-Mediterranean Race from its apparent affinity with the Mediterraneans, taking out from its appellation the factor of language altogether, or, better still, we may call it 'the Brown Race' with Elliot Smith. Their distribution does not appear to be confined to the Dravidian-speaking region at all, but it seems that side by side with the non-Mongoloid narrow-nosed brachycephals of medium stature they are distributed over a very wide area in this country.

In Bengal, for example, the presence of the brachycephalic Alpine and the dolichocephalic Veddaic types has been fairly well established, but the existence in that province of the slender, long-headed, fine-nosed Mediterranean type has not been so very clear, and hence I would proceed to examine this problem in some detail, as the case of Bengal will provide us with a typical illustration for other parts of India where the Alpine brachycephals predominate. I have lately measured a hundred individuals of one of the high castes, the Rādhī Brāhmins of Bengal, and a hundred of the Muchis of the district of Birbhum in the same province, occupying the very

lowest rung of the social ladder, and besides, some of the other high castes—the three groups of Kāyasthas that we find in the country and also of the Vaidyas. As the Kāyasthas and Vaidyas differ but little from the Brāhmaṇs, I have kept them out of consideration for the present, and would compare the Brāhmaṇs with the Muchis. I have throughout followed the directions of Martin in my measurments as laid down in the second edition of his Lehrbuch, and I have indicated the particular measument taken by quoting the number given to each in his book. I took 60 measurements on the head and different parts of the body and have derived 54 indices from them. Besides, I have recorded the results of my visual observation of 31 features that are mostly non-measurable. I have tried to include most of the important measurements and indices recommended by Martin. The statistical treatment of this rather large number of measurements, indices and observations it has not yet been possible to take up, for shortness of time, as they were taken in October and November last; but I have worked out the arithmetical means for the purposes of comparison of the Brāhmaṇ with the Muchi, and have set them forth in a table given at the end. I have also given in another table some specimen pages from my record of observations and measurements on 25 Brāhmaṇs in order to show my method and technique. The whole record may be published by the Calcutta University later. From the first table I have here brought together only four averages for our immediate use, and have also indicated in another short table the percentage composition of the Brāhmaṇ and the Muchi with regard to stature and the forms of the head and the nose.

TABLE I.

	Average Stature.	Average length-breadth Index of head.	Average length-height Index of head.	Average Nasal Index.
Brahman ..	1658.97	82.25	69.99	64.28
Muchi ...	1615.79	79.22	65.70	68.98

TABLE II.

	STATURE.			LENGTH-BREADTH INDEX OF HEAD.			LENGTH-HEIGHT INDEX OF HEAD.			NASAL INDEX.		
	Short.	Medium.	Tall.	Dolichocephal.	Mesocephal.	Brachycephal.	Chamaecephal.	Orthocephal.	Hypsicephal.	Leptorrhine.	Mesorrhine.	Platyrrhine.
	%	%	%	%	%	%	%	%	%	%	%	%
Brahman	32	36	32	9	44	47	2	10	88	68	32	0
Muchi ...	69	22	9	15	53	32	4	17	79	55	42	3

It will be observed from the above tables, that while the Brāhman has a brachycephalic average head index, the Muchi has a mesocephalic one, and from the analysis in Table II it is seen that while there is a preponderance of brachy and mesocephals in both, there is a certain proportion of dolichocephals in them, and that it is higher in the Muchi than in the Brāh-

man. It will also be observed that chamaecephaly, which is a Veddaic feature, is present in a very small percentage (2 and 4 respectively) in the two groups which are predominantly hypsicephalic.

Among the Brāhmaṇs measured by me, there is not a single platyrrhine individual, while among the Muchis there are only three in a hundred, and the average nasal index is well within the range of leptorrhiny in both, the Brāhmaṇ nose being a little finer. In stature, the averages show that while the Brāhmaṇ is of medium height, the Muchi is below the medium, but as this comparatively low stature is associated with a fine nose, the dolichocephalic racial element that enters into the composition of both is not the Veddaic but the Mediterranean. The Veddaic element has but slightly affected the composition of the Muchi, while it is almost absent in the Brāhmaṇ. It is thus clear that beside the Alpine element which is strong in both, and more so in the Brahmin than in the Muchi, the Mediterranean element is present in both but more prominent in the Muchi than in the Brāhmaṇ.

We find from Giuffrida-Ruggeri's '*Sketch of the Anthropology of Italy*' (*J.R.A.I.*, XLVIII, 89) that in the five southern districts of Italy, where the Mediterranean type is predominant, the average stature ranges between 1604 and 1620, the average cephalic index lying between 78.4 and 82.1 and the nasal index between 69.49 and 69.77, the homogeneity of the type being seen in the nasal index. He describes the people of the region as of a height generally below the medium, the skin somewhat brown, the

hair and eyes black, and having a slim figure without adipose and without a paunch. The slender figure without adipose and without a paunch is a general character of the Muchi, and of a considerable number of the Brāhman; Elliot Smith's description of 'the Brown Race' of which he notes that the whole skeleton is of slight build and suggestive of effeminacy, fits in very well with the general Bengali pyysiognomy. Among the hundred Muchis measured by me there were only two individuals of the stout, thick-set stocky figure that is generally associated with the Alpine type, and though the percentage of this latter type is a little higher in the Brāhman, the girth measurements will show that it is not high in any group of Bengalis. Elliot Smith also notes about the Brown Race that it is marked by scanty hair on body and face; this is also a general character of the Muchi among whom I find scanty hair on the body, and the hair on their lips and chin is not very plentiful. Among the Brāhman also I noticed a fair number having very scanty body hair, though on the face it is comparatively thick in the majority.

From an analysis of these two castes of Bengal we perceive the existence of a predominant Alpine type and of an appreciable Mediterranean or Brown Race type among the Bengalis, and it seems reasonable to expect that the presence of these two types in varying proportions may be discovered on a similar analysis being made in many other parts of India, but the somatometric data at present available are too scanty to arrive at any definite and exact conclusion.

Mr. A. E. Porter in the last *Census Report* for

Bengal (§459) refers to the wide divergence between the Brāhmaṇs of Bengal and Mithila; but the 53 Maithil Brāhmaṇs I measured, mainly of the Dār-bhanga district and a few from the Muzaffarpur district, show a considerable affinity between the two, with a fair percentage of brachycephals among them; but a series of 85 Bhūmihārs whom I measured in the interior of the Patnā district show a lower percentage of brachycephals among them, as will appear from the following table :—

	Stature.				Cephalic Index.				Nasal Index.			
	Average.	Short.	Medium.	Tall.	Average.	Dolichocephal.	Mesocephal.	Brachycephal.	Average.	Leptorrhine.	Mesorrhine.	Platyrrhine.
		%	%	%		%	%	%		%	%	%
Maithil												
Brahman	1634	25	64	11	78·20	23	58	19	66·6	66	34	0
Bhumihar	1644	25	55	20	76·60	42	47	11	69·0	58	40	2

Prof. Eickstedt in his classification of the peoples of India (*Zeitschrift für Morphologie und Anthropologie*, XXXII. 77ff.), has not taken the brachycephals into consideration at all, in fact he has attached little importance to the cephalic index in formulating his scheme. His analysis of the Indian peoples, however, is a brilliant piece of work, wherein he studies the Indian racial problem from an entirely independent point of view; and let us hope that he will work it out more fully and help us to disentangle our knotty prob-

lems, as his exhaustive knowledge of all departments of anthropology eminently fits him to do.

I shall next proceed to a discussion of the problem of Āryan migration into India. It has been widely held that Vedic Āryan culture was introduced into India by the tall, long-headed branch of the Indo-European people, the so-called Proto-Nordic race, and Dr. Hutton in the last Census Report has exercised great ingenuity and skill to establish this thesis. But a sifting examination, unbiassed by the Nordic obsession, of the anthropological data, as well as of the evidence afforded by the Vedic literature itself goes to prove that the Alpine brachycephals have as great, if not a greater share, in the development and propagation of the Āryan language and of the Vedic religion.

A stock argument advanced in favour of the Proto-Nordic introduction of Vedic culture into India is that the tall long-heads now occupy the country through which flow most of the rivers mentioned in the Rigveda, the fact being quite lost sight of that they are comparatively late arrivals. The very position of these long-headed people in India, surrounded as they are on almost three sides by the Alpine round-heads, shows that they forced their way through the mass of the earlier Alpine settlers, who spoke and do speak at the present day as good Āryan dialects as the so-called Proto-Nordics. Then again, certain texts have been quoted from very late Vedic literature to prove that the Alpine dwellers of Eastern and Western India were regarded as un-Vedic, but certainly this was not true of the early Vedic period at any rate. Moreover, it has been held that throughout

the long centuries through which the Rigvedic hymns were composed, the Vedic Āryans confined themselves to the Panjāb without moving towards the east or the south. That the Āryan-speaking people, who were mostly nomads who had domesticated the horse, would sit tight in a corner of India while the vast fertile plains lay open before them for a thousand miles without any serious geographical obstacle, is absurd on the very face of it, and I appeal at first instance to the Rigveda itself to dispel this illusion.

We are told by a hymn in the Rigveda (X. 136) that long-haired, yellow-robed ascetics bearing the designation of *Muni*, traversed the whole width of India from the Eastern to the Western Ocean—from the Bay of Bengal to the Arabian Sea. Thus we read in the hymn—‘The Muni who is (verily) the steed of the wind and is the comrade of Vāyu, the Wind-God, being urged on by the gods, *travel to both the oceans, the Eastern as well as the Western*’ (verse 5). Moreover, the country of the Kīkaṭas which from later Indian literature we know to have included modern Bihār, was well known to the *Rigveda*, (III 53, 14).

Bringing together all the characteristics enumerated in the Rigvedic hymn in which the above verse occurs, we observe that the Muni is described there as wearing long hair (*kes'in*) and as garbed in dirty-looking brown garments, and it is thus clear that he is the predecessor of the later *Yati* or *Parivrajaka*, and, like him, his business is to wander from place to place, wearing long unkempt hair, robed in yellow or brown vestments, spreading the culture and religion

of the Veda, and the worship of the gods, of each of whom he has thus become a devoted friend (*sakhā hitah*); by his intense love of and devout service to the gods he is often thrown into a condition of ecstasy when his body shakes and trembles like a tree with the wind (*Munirdhuniriva*) as the Rigveda (VII. 56, 8) has it. The Munis travel with the swiftness of the wind and wander through the wilds and forests, following paths trod only by wild beasts. The *Muni* with his constant peregrinations and devout service to the gods is invested with superhuman and mystic powers, so much so that the long-haired *Muni* is believed to be a comrade of the dreadful god, Rudra, with whom he drinks from the same cup of poison, as a verse of the same Muni-hymn informs us (Rv. X. 136, 5-8).

The character, with which the Rigveda invests the Muni, is associated with him throughout the Vedic literature, and we find him as one of the earliest preachers of Vedic religion and culture. He is a live creature well known to Indian tradition, and cannot be explained away as a mere mystic reference to the Sun, as some scholars have tried to do. *The Atharva-veda* (XI. 5, 6) also tells us that the celibate ascetic (*Brahmachārin*), clothed in the skin of the black antelope, and wearing a long beard (*dīrghas'mas'ru*) wanders from the Eastern to the Northern Ocean.

Moreover, it may be pointed out that though the Rigveda does not mention the Eastern and the Western Oceans in any other passage than the one we have quoted, yet it refers to the *chaturah samudrān* (Rv. IX, 33, 6), the four oceans, showing that it was

known to the Rigvedic seers that land was girt by sea in every direction, just as the *Aitareya Brāhmaṇa* (VIII. 25, I) says that the ocean envelops the earth.

Then again, the Western and the Eastern Oceans are mentioned in Vedic literature in passages where there is very little room to doubt an intimate knowledge of the two seas among the Vedic Aryans. Two passages in the *S'atapatha Brāhmaṇa* (I. 6. 3, 11 and X. 6. 4, 1) speak of the Eastern and Western Oceans in exactly the same words as these used in the *Rigveda* to designate the two seas—viz. *Pūrva* and *Apara Samudra*. Referring to these two passages the authors of the *Vedic Index* also observe, 'The eastern and western oceans in the *S'atapatha Brāhmaṇa*, though metaphorical, probably indicate an acquaintance with both the seas, the Indian Ocean and the Arabian Sea'. There can, therefore, be no doubt that the Rigvedic verses, mentioning the same seas in exactly the same words, must indicate that in the Rigvedic Age the Indo-Āryans had got acquainted with them. Bühler pointed out long ago that the numerous passages in the *Rigveda* referring to the story of the saving of Bhujyu by the As'vins in their hundred-oared vessel, may indicate his rescue from shipwreck while on a voyage on the Indian Ocean.

In the next succeeding age, when the *Kalpa-sūtras* (subsidiary works on ritual and law) were composed, and which must have been separated from the *Brāhmaṇa* epoch by several hundred years, we find that differences in custom and conduct had arisen in the different Vedic divisions, separating them from the people of the Vedic Midland which

formed the centre of later Vedic culture ; and we find purist champions of the Midland culture deprecating the people on the frontiers, in the east, west, or the south. Thus Baudhāyana declares, "The inhabitants of *Avanti* (or *Anārtta* according to a difference in reading), of *Aṅga*, of *Magadha*, of *Saurāshṭra*, of the *Deccan* (*Dakṣiṇāpatha*), of *Upāvṛit*, of *Sindh*, and the *Sauvīras*, are of mixed origin. He who has visited the [countries of the] *Araṭṭas*, *Kāraskaras*, *Puṇḍras*, *Sauvīras*, *Vaṅgas*, *Kaliṅgas*, (or) *Prāuṇas*, shall offer a *Punastoma* or a *Sarvaprishṭhā* (*Isṭi*)" (*Dharmasūtra*, 1, 2, 12-13). In his *Srautasūtra* also Baudhāyana prescribes similar penances, the *Chatusṭoma* *Agnishṭoma* for those who visit the above countries, and *Āpastamba* in his *Srautasūtra* too prescribes the *Ekavims'a-stoma* for one guilty of a similar misconduct. Thus he ordains, " (The penance for an individual is) the *Ekavims'a* when he goes to a people such as the *Gāndhāris*, *Kaliṅgas*, *Magadhas*, *Pāraskaras* (or *Kāraskaras*), or the *Sauvīras* '. *Hiraṇyakes'in* in his *Srautasūtra* (XVII. 6) delivers himself in the same strain. Very late writers on the *Dharmas'āstra* also have indulged in similar condemnation in imitation of the *Ālpaśūtra* ; thus *Devala* (*Smṛiti*, verse 15) says, "A person requires to go through a purificatory rite by visiting the [countries of] *Sindhu*, *Sauvīra*, and *Saurāshṭra*, and the peoples inhabiting the frontier regions and the *Kaliṅgas*, the *Koṅkanas* and the *Vaṅgas* '. Another verse in the same tenor is often quoted : "A person who visits the countries of *Aṅga*, *Vaṅga*, and *Kaliṅga*, or those of *Saurāshṭra* and *Magadha* except for the purposes of pilgrimage

requires to go through a ceremony of purification (or, to be initiated anew)".

Now, it will be observed that the countries thus condemned include Gujarat, Kathiawār, and Konkan in the south-west, Sind and a great part of the Panjāb and the North-Western Frontier, Bihār, Bengal and Ōṛissā, and the whole of Southern India (Dakṣiṇāpatha), that is, almost the whole of India leaving only a narrow strip in the Midland, the Doab between the Ganges and the Jumna, the country within the narrowest limits of the so-called Āryāvarta as defined by Baudhāyana and Vasishṭha, both of whom give two alternative definitions of it. Thus says Baudhāyana : (Dh. I. 1.2., 9-10) 'The country of the Āryas (Āryāvartta) lies to the east of the region where (the river Sarasvatī) disappears, to the west of the Black-forest (Kālakavana), to the north of the Pāripatra (mountains, i.e. the Aravallis), and to the south of the Himālaya. The rule of conduct which prevails there is authoritative. Some declare the country between the (rivers) Yamunā and the Ganges (to be the Āryāvartta)'. This latter view perhaps represents the personal view of Vasishṭha and Baudhāyana, but both of them have the goodness to give a third alternative which provides a far more liberal definition of the region where Vedic culture prevails, and which is quoted from a *gāthā* or verse of the *Bhāllavins*, an ancient Brāhmaṇa school of the Sāmavedins whose works are no longer extant. Thus Vasishṭha (Dh. S. I. 13-15) : 'Others [state] as an alternative, that spiritual pre-eminence derived from a study of the Vedas is found as far as the black antelope grazes. Now the Bhālla-

vins quote also the [following] verse in the Nidāna :
 “In the west, the boundary is the Sindhu (the Ocean, or the Indus), in the east the region where the sun rises,—as far as the black antelope wanders, so far [is found] spiritual pre-eminence acquired from a study of the Vedas”.’ Baudhāyana (Dh.S. I. 1.2, 11-12) also rounds up his discussion about the limits of Āryāvarta with exactly this quotation from the Bhāllavins. The importance of the black buck or Indian antelope (Krishṇasāra) to Vedic culture may be seen from numerous passages in Vedic literature : ‘The skin of the black antelope is the visible form of the Brāhmaṇ’, that is, of the Veda, declares the *Tattirīya Samhitā* (V. 4. 4, 4), and the *Tāṇḍya Mahābrāhmaṇa* (XVII. 11, 8) asserts that Krishṇājina is the visible form of *Brahmavarchas*, that is, of spiritual pre-eminence as acquired by a study of the Vedas. It is evident, therefore, that in the age of that Brāhmaṇa, the Vedic Āryans had wandered far and wide through the Indian continent, following the black buck wherever it roamed, ‘*mṛgāṇām charaṇe charan*’ as the Rigveda (X. 136, 6) puts it, and that Vedic Āryandom had become conterminous with the range of the Indian Antelope, *Oryx cervicapra*, because, as Blanford observes, the genus to which it belongs is peculiar to India where its range is very wide. ‘This antelope,’ says Blanford, ‘is found in suitable localities, chiefly open plains with grass of moderate height, from the Indus to Assam, and from the base of the Himalayas to the neighbourhood of Trichinopoly. Formerly it was far more abundant, and in the first half of the nineteenth century it

was seen occasionally in vast herds of 8,000 to 10,000 in number ; but its numbers have been greatly reduced since rifles have become common.' (*Imp. Gaz. of India*, I, 235).

Now, the question is, what is the reason of this threefold definition of Vedic Āryandom. The question as to how far the Āryas dwelt in the east or the west cannot be a matter of opinion, but is a matter of fact. It is absurd to imagine that the Āryas who, at the early period of the Brāhmaṇa work of the Bhāṭṭavins, dwelt from the Arabian Sea up to the plains of Assam, had receded in later times within the Ganges-Jumna doab ; the only inference that can be drawn is that the Āryas, living in the far east, as well as the extreme west, were developing customs and manners that differed from the ancient traditions of the Vedic Āryans as preserved in the Midland, and that in the Midland itself people had worn off the expansive energy and elasticity of the Vedic Āryans in their pristine vigour, and were growing stagnant, developing a narrower outlook towards life in general and developing an exaggerated idea of their own customs and practices that were fast growing fossilized. If the people on the west—in Konkana, Anārṭta, Saurāshṭra, Sind and the Panjāb on the western front, and Vaṅga and Kalinga on the eastern, were deviating from the ancient traditions, the Midland purists felt disinclined to recognize them as their own kith and kin. There were purists of a still narrower type represented by those who held the second alternative limiting the Āryas to the thin strip of land between the Ganges and the Jumna, leaving out every

other people, north, south, east and west. These are the purists of the Doab, perhaps younger contemporaries of Vas'ishṭha and Baudhāyana, who glorying within the two sacred rivers, were cultivating an aloofness from the rest of India. It should be remarked, however, that the ancient traditions of the Brāhmaṇa times, making Vedic Āryandom conterminous with almost the whole of India, were not entirely forgotten ; in fact, the statements of Manu and Yājñavalkya with regard to the limits of Vedic India show that they survive till a very late age. Moreover, it requires to be particularly recognized that the word '*Arya*' in Vas'ishṭha and Baudhāyana has no ethnic significance at all, but is almost synonymous with '*s'ishṭa*', that is, 'a man of correct conduct', as appears from the context, and Patañjali in his discussion about the '*s'ishṭas*' in the Mahābhāshya (on Pāṇini, VI. 3, 109), gives a definition of the *s'ishṭa*-land in almost the exact words of the above two authors of the Dharmasūtras.

The reasons from which the strong feeling against the frontier provinces in the east and the west had its origin, may be discovered in these Sūtra works themselves. Baudhāyana, for example, in his Dharmasūtra (II. 1, 2) while enumerating the offences that constitute a transgression entailing a 'fall' (*patanīya*) or degradation from social position, gives first rank to 'going to the sea' (*samudra-samyānam*), and includes trade and commerce in the same list. Thus says he : 'Now [follow the offences] causing loss of caste (*patanīya*), viz., making voyages by sea, misappropriating the property of a Brāhmaṇa or a deposit, giving false

evidence regarding land, trading with merchandise of any description [whether] forbidden or not, serving S'ūdras, etc. For those who have committed one of these [offences the following penance is prescribed] : " They shall eat every fourth meal-time a little food, bathe at the time of the three libations,—morning, noon and—evening, passing the day standing, and the night sitting. After the lapse of three years they throw off their guilt ". ' In the very first chapter of his Dharmasūtra also Baudhāyana complains against the irregular practices of the people of Northern India, such as going to sea, trading in wool, or in animals like the horse (that have teeth in the upper and the lower jaw), and following the trade of arms, and we have seen what severe punishment he ordains for sea-voyage and trade of any kind. Is it any wonder that law-givers like Baudhāyana, who profess such a great horror of sea-voyage and trade, should condemn maritime countries like Sindhū, Saurāshtra and Anārta on the western coast, and Vāṅga and Kalinga on the eastern ?

Baudhāyana, in the passage from his Dharmasūtra quoted above, speaks of the people on the western and eastern frontiers as of mixed origin (*sankīrṇa-yonayah*). Perhaps he means that the people in these provinces had got mixed up with non-Āryan elements. Admixture had taken place everywhere in India with the earlier non-Āryan ethnic strata—the aboriginal inhabitants and the Mediterraneans, some of whom they displaced, but many of them they must have absorbed ; and besides, there must have been an admixture of culture in the frontier province owing to

the people coming into contact with the foreign nations they traded with. Quite apart from this, however, the ethnological survey of the Indian peoples has revealed that there is a clear ethnic distinction between the people of the Vedic Midland, including the Eastern Punjab, Northern Rajputana, and the western districts of the United Provinces, on the one hand, and the countries on the eastern and western frontiers which Baudhāyana condemns, on the other,—just the same distinction as between the peoples of Northern and Southern Germany. While the people of the districts included in the Midland are predominantly long-headed, the round-heads are found predominant in almost all other parts of Āryan-speaking India, as Dr. B. S. Guha's measurements have shown.

There is also a difference in the languages spoken by these two groups of peoples in India, as was pointed out long ago by Hoernle and this has been confirmed by the Linguistic Survey of India carried on under Grierson. It is found that they fall into two distinct branches of the Indo-European family, that the languages spoken in the Outer or peripheral area, viz. Lahṇḍā or Western Panjābi, Sindhi, Mārāthi, Ōṛiyā, Bihāri, Bengali, and Assamese, which may be called the 'Outer Branch', are derived from a different dialect of the original Indo-European tongue than the languages of the 'Inner Branch', viz.—Western Hindi, Panjābi, Bhīli, Khāndeshi, Rājasthāni, and the Pāhārī dialects.

Now, the question is, which group entered India earlier. Grierson observes, "At an early period of the linguistic history of India, there must have been two

sets of Indo-Aryan dialects—one the language of the Midland, and the other, the group of dialects forming the Outer Band. From this it has been argued, and the contention is entirely borne out by the results of the ethnological enquiries, that the inhabitants of the Midland represent the latest stage of Indo-Aryan immigration. The earliest arrivals spoke one dialect, and the new-comers another. According to Dr. Hoernle, who first suggested the theory, the latest invaders probably entered the Punjab like a wedge, coming into the heart of the country already occupied by the first immigrants, and forcing the latter outwards in three directions to the east, to the south and to the west" (*Imp. Gaz. of India*, Vol. I, pp. 357-9).

It is now generally accepted that these Aryan-speaking round-headed peoples entered India from the Pāmirs, as Chanda was the first to point out, but he held that they represented a later wave of immigration than that of the long-heads. But Giuffrida-Ruggeri and Dixon think that the round-heads were the first to enter. Hutton, in his *Census Report of India* (1931, Vol. I, pp. 449ff and pp. 366-369), also accepts unreservedly that the round-headed immigrants came first, but he sticks to the idea that the Rigvedic culture originated among the long-headed peoples who entered India later; he fails, however, to adduce any evidence in support of his theory. There are no means of ascertaining whether the Rigvedic Aryans were long-headed or round-headed; perhaps there was already a mixture of these two types of the Indo-European race before they entered India. At Mohenjo-Daro distinctly round-headed Alpine skulls

(Type IV of Guha and Sewell) have been found, beside Veddaic, Mediterranean and Mongoloid skulls, but none of the type to which the tall, long-headed people of the Midland might be apportioned. The descendants of the Alpine round-heads whom we thus find in India in very early times, speak at present pure dialects derived in a direct line of descent from the Rigvedic tongue, and we have demonstrated that the Rigvedic Āryans had already spread over the portions of India which the round-heads now occupy in the south-west and the east. It would, therefore, be quite natural to conclude that the round-headed Alpines, having been the first immigrants of Āryan speech into India, should presumably have been the first originators of the early Vedic culture also, at least they must have been the predominant type among the early Vedic Āryans. In later times large numbers of peoples, belonging to the long-headed branch of the Indo-European race, and speaking a different dialect, came pouring in through the north-western passes, and drove the more cultured, and hence, less warlike, round-heads towards the south and the east, and wrested the Panjāb and the Midland from them. These comparatively barbarous and warlike newcomers, belonging to a collateral but different branch of the Indo-European stock, which has been called Proto-Nordic by some, gradually absorbed the Vedic culture of the earlier settlers. As a result of the compact of these two types, the earlier inspired and poetic style of the hymns gave place to the vigorous prose style of the Brāhmaṇas, and the subsequent Vedic culture

developed and flourished in the hands of this new people. These so-called Proto-Nordics, averse at first to trade and a sea-faring life, stuck fast bigotedly to the customs they had adopted, and disliked the new customs that the roundheads whom they had pushed south, and east, were developing in their new environment. Hence their strong feeling against going to sea and the condemnation of countries like Gujarat and Mahārāshṭra on the one hand and Bengal and Ōṛissā on the other, where the people naturally took to maritime intercourse and trade with foreign peoples, with the islands in the Indian Ocean and with China.

It is thus clear that in these passages of the very late and subsidiary Vedic literature, there is nothing to show that the peoples in Eastern or Western India were un-Āryan. On the other hand, there is every reason to believe that the brachymorphous Indo-Europeans, speaking Āryan languages, had settled in Northern India and spread as far as the Tinnevely district in the extreme south at a very early period, as the Adichanallur skull examined by Elliot Smith shows: Engulfed in the ocean of speakers of Dravidian languages who perhaps under the pressure of these very Alpine invaders had become concentrated in the south, they lost their language, but perhaps imparted at least some elements of their culture to them even at that early epoch.

At the present day we find small groups, mere islands of peoples bearing Indo-European features, isolated in the wild regions that extend from the north-eastern frontier of India to the Pacific. The

fact that they extend almost in a continuous line from the borders of Assam eastwards to the ocean tends to prove that they passed from India, and thus must have crossed the whole width of Northern India to the Patkoi range and beyond. We often do not know much of their culture, but the very fact that most of them are at a primitive stage of culture would suggest that isolated in unfavourable surroundings they lost what culture they possessed, or that they passed through India in very early times before the development of Vedic culture in India. In that case, it would be premised that in Eastern India men of the Indo-European racial type had settled even before the rise of the Vedic civilization. But only an intensive study of the peoples, both of their physical features and of their culture, can definitely solve the problem of these stranded remnants of Indo-Europeans.

At every turn in our attempt to solve the problems of racial classification, we are faced with a dearth of adequate materials to work upon. In India, therefore, a vast field for work lies before the anthropologist for investigation. Even in Great Britain where a number of renowned anthropologists have worked for such a long time, an appeal has recently been issued (*The Times*, March 13th, 1935) over the signature of 20 gentlemen, mostly anthropologists, for money 'to set on foot a comprehensive survey of the past and present populations of Great Britain', pointing out that 'Britain has lagged behind many other countries in carrying out recognized research into the racial history and the present physical constitution'. These remarks apply with all the greater force to

India where so little work has been done up to the present for solving the racial problems.

In India the number of independent groups with varying racial constitutions is so large that only a band of investigators working in each province for a number of years can hope to get together sufficient material for determining the racial history of the people. Theorizing here must wait until a sufficient body of reliable materials has accumulated. We must know more of the constituent elements of the Indian people, before we can undertake their racial analysis or seek for their origin.

Then again, each caste or tribal unit must be examined over the whole range of its distribution. While measuring the Rāḍhi Brāhmaṇs in Calcutta and the Muchi in the Birbhum district of Bengal, I felt that the Rāḍhi Brāhmaṇs of the Birbhum district were not quite like the Rāḍhi Brāhmaṇs of Eastern Bengal and Calcutta whom I had been measuring, that the difference between the Brāhmaṇ and Muchi of Birbhum itself would not be so striking as the difference I discovered between the two groups of mine. The cephalic indices obtained from a measurement of the head from over ten thousand college students in Calcutta showed a great range of variation inside the same caste-unit in different districts.

Another matter that I would bring to the notice of our anthropometric investigators is the number of measurements that have to be taken on each individual. Martin has set forth in his *Lehrbuch* the various measurements that the researches of anthropologi-

cal investigators in various fields of work have shown to be necessary for an anatomical study of the human skeleton. He has described 71 measurements on the body and 49 on the head, all of which it is not always easy to take in the course of our field work, yet an attempt should be made to obtain as detailed a knowledge of the human anatomy as possible. Our earlier investigators have taken too few measurements. Thurston took only 5 measurements (comprising stature and the length and breadth of the head and the nose) in Southern India, which therefore remains practically unknown. Risley took 11 measurements (comprising stature and weight, and 9 measurements on the head) besides 2 additional measurements on the head in a few cases. Dr. B. S. Guha, whose anthropometric work in connection with the last Census operations is the most substantial contribution to Indian anthropology since Risley, has measured 18 different characters supplemented by 20 visual observations on features that cannot be quantitatively determined. His work has also been the most extensive, after Risley, as it embraced 51 racial groups from all parts of India. Prof. Eickstedt's measurements on 144 Panjābis held as prisoners by Germany during the Great War is the most intensive work that has yet been published embracing 42 different measurements on the face and the body, 13 different measurements on the face and the body, 13 personal data and 25 somatoscopic observations; besides, he has calculated a fairly large number of indices in the case of 76 Sikhs included among the Panjābis. In my work on the Bengal castes I have measured 60 different characters on the head and the body, supplement-

ed by 11 personal and 31 somatoscopic observations, and have besides calculated 54 indices. I have given here a specimen of my anthropometric record in the hope of rousing a discussion about the number of measurements with fellow-workers in India, as to whether this list requires to be augmented or reduced for actual field work. Dr. Guha has not taken the measurements on the body proportions, but they have acquired importance for racial analysis, as shown by the data collected by Martin. Another complaint that we have to make against Dr. Guha is that he has given us only the averages and not the individual measurements as Risley has done. Perhaps he reserves them for a subsequent volume. The size of the samples is another matter that requires attention. Some of our early samples were very small in size, and hence, as we have seen, not scientifically useful.

All anthropometric measurements require to be tested and treated by statistical methods in order to make our results scientifically exact and accurate. For the characterization of particular aggregates and for discovering their mutual interrelations the statistical method is invaluable. It should be borne in mind at the same time, as Martin observes (*Lehrbuch*, 2nd ed., p.68), that the application of statistical methods should always be objective, for in itself it might provide mathematical relations capable of various biological interpretations.

The anthropometric work that has been done in India so far is only of the nature of a preliminary survey and has provided us with a superficial knowledge of a few only of the large number of independ-

ent groups in each province, and the time has now arrived for exact and intensive investigation on strictly scientific lines. The investigator has to make a choice of his own particular field of work in an area where the conditions are most favourable to him for intensive work, where the vernacular of the people he has chosen to study is known to him. We are all very grateful to the officials and missionaries by whom anthropological work has so long been mainly done in India, but we have to admit, as Rivers declares, that in spite of the many advantages of the position of the official and the missionary, and of the nature of their work which brings them into intimate contact with the people, 'the amount of work we owe to the two groups of persons is disappointing both in extent and in scientific value' (*Report on Anthropological Work outside America*, Washington, 1913, p. 8).

The days of amateurish work, which has so often done harm to the growth of the science of anthropology, are gone, and trained investigators must now devote their whole time and energy to anthropological research, unhampered by other duties, to turn out scientifically exact and valuable work. Anthropology is a young science, and it should be approached with youthful earnestness and devotion.

II. NOTES ON THE CHAWTE KUKI CLAN.*

By

RAMESH CHANDRA ROY, M.SC., B.L.

I. General View of the Chawte Clan.

Traditions of Migration. The Chawte clan is a branch of the "Old Kukis", as the earliest Kuki immigrants in Manipur are called. Competent authorities tell us that the 'Old Kuki' clans came down from the Chhindwin valley generations ago and proceeded southwards towards the sea and turned northward again up the hills. But my informants knew nothing of the sea-ward migrations of their forefathers. They possess only a vague tradition of a migration to their present home from the south. In the Manipur State the Chawte live in a few villages scattered in the hilly regions near Logtak Lake.

Physical Appearance. Physically, the *Chawte* are fairly robust in constitution, of medium height, with Mongoloid features, and dark yellow skin-colour.

Occupation. The main occupation of the Chawte is agriculture, mostly by the wasteful *jhuming* (10) process. Their plough is drawn only by a single bullock.

*Collected at village Chawte on the West bank of the Logtak Lake in the Manipur State, Assam.

Food and Drink.

The principal crop they grow is rice which is their staple food. Vegetables such as pnmppkin and beans are grown and eaten and also fish and flesh of animals, when available. Pulses of different kinds are also eaten. For spiritious drink, the Chawte use the common fermented drink known as "Zu". This is indispensable at religious sacrifices and festivals and at social feasts and in entertaining friends and relatives, but ordinarily only cold water is drunk, and also rice-gruel at their daily meals.

House and Furniture.

They generally construct their houses on raised earthen plinths, in Manipur fashion, and not on a platform of logs as among the Nagas, nor are the villages of any large size nor surrounded by stockades or walls or other defences as among the Nagas in the Naga Hills through which we passed on our journey to Manipur. They no longer construct bachelors' halls but I was told that their forefathers had them. Their granaries are, however, of the nature of pile-dwellings.

Dress and Ornaments.

In dress and ornaments and household furniture, I noticed very little difference between the Chawte and the average humble Manipuri cultivator of the same social status.

Weapons and Implements.

The principal weapon used by the Chawte is the spear. They have an axe with a triangular iron blade which would appear to be have for its prototype the neolithic axe. This is also sometimes used as an adze. The *Dao* and the hoe are implements of every-day use.

Social Environment. It may be noted that cut off, as they are, from the main body of their own clan and other Kuki clans, the culture of the Chawte of the Logtak Lake region in the Manipur State has been largely influenced by their Manipuri or Meithei neighbours.

II. Social Organization.

Divisions of the Clan :—The Chawte clan is divided into six exogamous sections. I could not discover any totemestic usage or belief connected with the names of these sections. The names of the sections would appear to be eponymous. Each section is something like an extended family who trace their descent from one eponymous ancestor after whom the section or 'family' is named. The six sections are named as follows :—

1. *Marim* ; 2. *Hiyang* ; 3. *Thao* ; 4. *Jurung* ; 5. *Piring*, and 6. *Makhang* or *Marim-Mekhong*. These exogamous divisions regulate marriage amongst the *Chawte*. Not only must a *Chawte* lad not marry in his own section but a *Chawte* lad of one section must marry into one or other of only three out of the five remaining sections, unless he marries either a *Kabui-Naga* or a *Kom-Naga* girl,—for intermarriage between *Chawtes* of either sex and those two sections of the *Naga* tribe is permissible. As amongst the tribe itself,—
- a *Jurung* lad may marry only a *Thao* or a *Hiyang*,
or a *Piring* girl,

a <i>Marim</i> lad	„	„	a <i>Jurung</i> , or a <i>Piring</i> or a <i>Thao</i> girl ;
a <i>Thao</i> lad	„	„	a <i>Hiyang</i> , or a <i>Marim</i> or a <i>Piring</i> girl ;
a <i>Hiyang</i> lad	„	„	a <i>Marim</i> , or a <i>Jurung</i> , or a <i>Marim-Mekhong</i> girl ;
a <i>Piring</i> lad	„	„	a <i>Marim-Mekhong</i> , or a <i>Thao</i> or a <i>Marim</i> girl ;
a <i>Marim-mekhong</i> lad may marry only			a <i>Hivang</i> , or a <i>Piring</i> or a <i>Thao</i> girl.

As stated above, it is further interesting to note that a *Chawte* of any section may marry a *Kabui-Naga* or a *Kom Naga* spouse.

Each *Chawte* village has a chief styled *Laipu* and locally called by other castes and tribes as *Sardār*. He is also the keeper or custodian of the village deities. Thus he combines in himself the position of both the secular and the sacerdotal headman of the village. As such, he wields considerable authority over his fellows. He is now-a-days also the local agent of the State ; and it is through him that the ordinary affairs of the village in relation to the State are managed.

Village Organisation. *Customary Tribal Law and its Administration.*—The customary tribal law is administered by the Council of village-elders presided over by the *Laipu*. There is no written code of custom ; and the *Laipu* and the village elders are the repositories of this customary

law. Their customary law is mostly concerned with succession, inheritance and partition, taboo-rules, breaches of marriage rules and offences against marriage. Any breach of the customary law is punished by the village elders headed by the *Laipu*, with fine or excommunication. The fine is spent in a feast to the tribe-fellows. Matters in with the jurisdiction of the village tribunal is ousted by the Courts of the State may be taken up the Courts. Sometimes, though rarely, a recusant Chawte who refuses to submit to the decision of the Village-Council, has recourse to the State Courts at Manipur.

Kinship Organisation.—The Chawte system of kinship is that known as the Classificatory System, as the following list of kinship nomenclature, collected by me, will show.

Father— <i>Pa</i>	Son— <i>Cha-nau-pa</i>
Mother— <i>Nu</i>	Daughter— <i>Nupi</i>
Elder Brother (m.s.), <i>Aya</i>	Younger Brother (m.s.), <i>Aya</i>
Elder Brother (w.s.), <i>Kanaopa</i>	Younger Brother (w.s.), <i>Kanaopa</i>
Elder Sister (m.s.), <i>Aiya</i>	Younger Sister (m.s.), <i>Kanaonu</i>
Elder Sister (w.s.) „	Younger Sister (w.s.) „
Father's Younger Brother— <i>Atum</i>	Younger brother's child, <i>Kachhuao</i>
Father's Elder Brother— <i>Atc</i>	Elder „ „ „
Father's Brother's Wife— <i>Anute</i>	Husband's brother's child „
Father's Sister— <i>Ani</i>	Brother's child (w.s.) „
Father's sister' Husband, <i>Apu</i>	Wife' brother's child, <i>Katu</i>
Mother's Brother— <i>Apu</i>	Sister's child (m.s.), <i>Katu</i>
Mother's Brother's } son— <i>Aya</i>	Father's sister's } son, <i>Ava</i>
(if Younger) }	of Younger } daughter, <i>Aiva</i>

„ If older, same as elder brother and sister (namely, *Kanopa* and *Aiva* respectively).

Mother's Elder Sister— <i>Ate</i>	Elder sister's child (w.s.) <i>Katu</i>
„ Younger sister's— <i>Anute</i>	Younger sister's (w.s.) child <i>Katu</i>
Mother's sister's husband, <i>Kamao</i>	Wife's sister's child, <i>Katu</i>
Husband's Father, <i>Apu</i>	Son's wife, <i>Mo</i>
„ Mother <i>Api</i>	
Wife, <i>Kapipei</i>	Husband, <i>Ani</i>
Wife's Father, <i>Apu</i>	Daughter's Husband, <i>Katupa</i>
Wife's Mother, <i>Api</i>	„ „ „
„ Sister, <i>Ayu</i>	Elder sister's Husband, <i>Jrai</i>
Elder Brother's Wife (m.s.) <i>Kamanu</i>	Younger sister's Husband <i>Ilen</i>
Husband's sister's Husband, <i>Kapu</i>	Husband's younger brother, <i>Aranga</i>
Father's Father, <i>Pu</i>	Grand-child, <i>Tu</i>
Father's Mother, <i>Pi</i>	

That the Chawte system of relationship is still more or less “classificatory” is indicated by the following facts:—
Its Classificatory Nature.

- (1) The same term “*Aya*” is used for
 - (a) Own brother (of a man)
 - (b) Mother's brother's son (of a man)
 - (c) Father's sister's son (of a man)
- (2) The same term “*Aiya*” is used for
 - (a) Own elder sister
 - (b) Mother's brother's elder daughter
 - (c) Father's sister's elder daughter.
- (3) The same term “*Katu*” is used for “Brother's child” and “Husband's brother's child”, the “children of a sister”, Husband's sister, and wife's sister.
- (4) The same term “*Kanaonu*” is employed for
 - (a) One's own younger sister

- (b) Mother's brother's daughter (younger)
- (c) Father's sister's daughter (younger)
- (5) The same term "*Kanaupa*" is used for
 - (a) One's own brother (woman speaking)
 - (b) Mother's brother's son (Do)
 - (c) Father's sister's son (Do)

This grouping together of (1) one's own brother and mother's brother's son and Father's sister's son' (2) one's own sister, mother's brother's daughter, and father's sister's daughter,—and particularly the important function of the "Mother's Father" at the time of name-giving and the significance of the bride-price being taken by the mother and the bride's sister, would appear to indicate that probably there was in the past some form of matriarchate or mother-right in vogue among the clan or, at any rate, that they had a close connection or intimate contact with some matrilineal society in the course of their tribal history.

**(1) Probable
Traces
of Matriliney.**

**(2) Cross-Cousin
Marriage.**

Again, from the above list, it will be seen that the following kinship nomenclature points to the existence of cross-cousin marriage, which, as I found on enquiry, is actually in vogue to this day among the Chawte:—

- (1) The same term "*Apu*" is used for:—
 - (a) Wife's Father,

- (b) Mother's brother,
- (c) Father's sister's Husband,
- (d) Husband's Father.

(2) The same team "Api" is used for:—

- (a) Wife's mother,
- (b) Husband's mother,
- (c) Father's sister,
- (d) Mother's Brother's Wife.

Position of Woman.

Although polygamy is allowed, the position of the woman in Chawte Society appears to be fairly satisfactory. The wife is the mistress of the house-hold.

Marriage Customs.

Form of Exogamy.

As has already been said, the Chawte clan is divided into six exogamous sections. Marriage within the same section is strictly prohibited and any body violating the rule is turned out of the village. As I have already said, a Chawte lad, unless he marries a Kabui Naga or a Kom Naga girl, is allowed to marry a girl of only one of three out of the six sections of the tribe. But the range of selection in the case of girls varies in different sections.

Thus:—

a *Jurung* girl may marry only a
 a *Marim* girl may marry only a
 a *Thao* girl " " " "

Marim or a *Heyang*;
Piring or a *Thao* lad;
Marim or a *Piring* lad;

- a *Hiyang* girl " " " " *Jurung* or a *Piring* or a *Thao*
or a *Marim-mekhong* lad;
a *Piring* girl " " " " *Jurung* or a *Marim-mekhong*
or a *Thao* or a *Marim* lad;
a *Marim-mekhong* girl may marry only a *Heyang* or a *Piring* lad;

Marriage Taithi.

Now-a-days it is the Chawte boy's people who seek for a suitable bride for a boy. A

**Selection of
Bride-groom
and Bride.** girl is regarded as an asset to the Chawte family.

The bridegroom's father manages secretly to see the bride at her house, village or in the market-place. If he is satisfied with the health, appearance and demeanour of the girl, the boy's father himself goes one evening to the intended bride's father and makes the proposal. If the girl's parents consider the match a desirable one, they signify their provisional approval of it. Then the girl's father one day goes and sees the boy and takes all necessary information about the boy and his family (without the knowledge of the latter.)

After this, information is sent to boy's house by the bride's father of his final approval and he invites the former to come and settle the bride-price on a particular day.

On the evening of the appointed day the bride-groom's father, accompanied by a few
**Preliminary
Negotiations.** relatives and friends (men and women), come to the bride's father's house with some *Zu* (rice-beer) in a gourd bottle. They are received at the boundary of the village by some men of the bride's side. When they reach the house of the bride's father, the latter and his relatives greet

them; they give them water to wash their hands and feet. A mat is spread out for them; and they are asked to take their seats. After some conversation as to one another's health and the happenings on the journey, the bride's father formally announces the object of his visit. Before doing so, the bridegroom's father hands over the gourd-bottle of *Zu* brought by him to the bride's father. The latter drops a little *Zu* on the ground before him with salutations. Then he drinks a little of the *Zu* and passes on the gourd-bottle to his relatives.

Now the boy's father says, "I have come to seek the hand of your daughter for my son".

The girl's father replies, "I shall be very glad to comply with your request, but before marriage your son will have to remain at my house for three years and work in my fields and house".

The boy's father says, "My son will not do that; but I shall give you a proper bride-price".

If the bride's father agrees, then the bride-price (which formerly used to be one ox or

Bride-price.

mithun, an axe and a spear, but now instead of a *Mithan* a sum of Rs. 30/- as its value) is paid in full or in part. The mother of the bride and her elder sister each receives a cloth from the groom's party before marriage. The date of marriage is now fixed. Then the bridegroom's party is treated to a dinner and plenty of *Zu*,—not in the bride's house but in some other house where accommodation is found for them. There they stay for the night. Next morning they are given a gourd-bottle of *Zu*, a little of which the bridegroom's father drops on the ground,

and there salutes the other party. They then return home.

On the day appointed for the wedding, the bridegroom's party consisting of relatives and friends (male and female) of the bridegroom start with the bridegroom for the bride's house in procession. There they are given a hearty welcome, first at the entrance of the village, and then again at the entrance to the bride's house. Young men and women dance, and play upon "Drums" and gongs. Both the bride and the bridegroom take their bath and put on new clothes. They are then seated, face to face, on opposite sides of the hearth, in the cooking apartment of the bride's father's house. The bridegroom sits with his face to the south and the bride facing north. The bride's father sits down in front of the hearth facing west. (He must not face east because dead bodies are buried with their faces turned eastwards). Then in the presence of relatives and friends of both sides, the bride's father pours libations of *Zu* (rice-beer) over the hearth three times saying,—“Oh Ancestors! To-day my girl is married to so-and-so (names); so I am giving you this *Zu*. Do ye see that the couple may live in happiness”. The importance of the hearth as the abode of the ancestor-spirits is noticeable.

He then sprinkles some *Zu* over the heads of the couple by way of blessing, and drinks some *Zu* himself. Then all present drink the sanctified *Zu*. Then the whole party is treated to a feast with plenty of drink at the bride's house.

Finally, the bride is taken to the bridegroom's house. Next day at the bridegroom's house, his rela-

tives and friends are treated to a feast and the bridegroom himself offers *Zu* to the spirits of his ancestors.

Generally soon after the marriage or, at any rate, within a year of it, the new couple
Setting up House erect a new house of their own.

It may be noted that polygamy is practised. When a man marries two or more wives, a separate house is constructed for each wife. Widow-marriage is allowed.

The following list of relationship-terms of the Vaiphei clan to which my interpreter himself belonged may be cited for comparison :—

Father- <i>Pa</i>	Son- <i>Cha pa</i>
Mother- <i>Nu</i>	Daughter- <i>Nu</i>
Elder brother (m.s.)- <i>U-pa</i>	Younger brother (m.s.)- <i>Nan-pa</i>
Elder brother (w.s.)- <i>u-pa</i>	Younger brother (w.s.)- <i>Nan-pa</i>
Elder sister (m.s.)- <i>Nan-pa</i>	Younger sister (m.s.)- <i>Nan-nu</i>
Elder sister (w.s.)- <i>Nan-pa</i>	Younger sister (w.s.) "
Father's brother- <i>Pa</i>	Elder brother's child } - <i>cha-pa</i>
Father's younger brother- <i>Pa-ngak</i>	Younger brother's child } or <i>Cha-nu</i>
Father's Elder brother's Wife <i>Nu</i>	Father's Elder brother's child <i>U</i>
" younger " "	" younger " " - <i>Nau</i>
Father's sister- <i>Ni</i>	Wife's brother's child "
	Brother's child (w.s.) <i>Nau</i>
Father's sister's husband- <i>Gang</i>	Father sister's child- <i>Tu-pa & Tu-nu</i>
Mother's brother- <i>Pu</i>	Sister's child (m.s.)- <i>Tu-pa</i> or <i>Tu-nu</i>
Mother's brother's wife- <i>Pi</i>	Husbands sister's child , "
Mother's brother's son- <i>Pu</i>	
" " daughter- <i>Pi</i>	
Mother's elder sister- <i>Nu</i>	Wife's sister's child- <i>Cha-pa</i> or <i>cha-nu</i>
Mother's younger sister- <i>Nungak</i>	Sister's (w.s.) child
Mother elder sister's husband- <i>Pa</i>	Wife's sister's child
" " younger " " - <i>Pa-ngak</i>	Wife's sister's child
Husband's father- <i>Gang</i> or <i>Pa</i>	
" mother <i>Ni</i> or <i>Nu</i>	Wife <i>Zi-nu</i>
Husband- <i>Pasal-pa</i>	

Wife's father- <i>Tarpu-nu</i>	Daughter's husband- <i>Mo-nu</i>
Wife's mother- <i>Tarpi-nu</i>	
Daughter's husband- <i>Makta</i>	
Father's father- <i>Pu</i>	} Son's son (m.s.)- <i>Tu-pa</i> Son's son (w.s.) ,,
Father's mother- <i>Pi</i>	
Mother's father- <i>Pu</i>	
Mother's mother- <i>Pi</i>	
Wife's brother- <i>Tar-pupa</i>	Sister's husband (m.s.)- <i>Makta</i>
Wife's sister- <i>Nan-pa</i>	sister's husband (w.s.)- <i>Nulam-pa</i>
Husband's Elder brother- <i>U</i>	Elder Brother's wife <i>U-nu</i>
" younger " - <i>Nan</i>	Younger " " - <i>Nan-nu</i>
Husband's sister- <i>U-nu</i>	Husband's Elder brother wife- <i>U-nu</i>
Wife's sister's husband- <i>Nulam-pa</i>	
Son's wife's parents- <i>Pu</i> or- <i>U & nau.</i>	Husband's younger brother's wife- <i>Nan-nu</i>

Among Vaephei as among the Chawte, a widow is taken as a wife by her deceased husband's brother. The word for maternal uncle is the same as that for the maternal as well as paternal grand father. In both these clans husbands and wives may not call each other by name.

IV. Birth and Childhood Customs.

Delivery and Lying-in Customs :—The Chawte have no observances during a woman's pregnancy or before parturition. When labour-pains come on, a midwife belonging to the tribe is sent for. The husband refrains from going outside the house for work for three days. This may perhaps be a relic of an old custom of couvade.

The parturient woman remains in-doors and must not cook food. No fire should be given away from the house to any outsider during these

three days ; for otherwise the child, it is believed, will cry loudly and constantly.

The umbilical cord is cut with a bamboo-knife by the midwife. The father buries it under the threshold of the main door of the house.

The husband or somebody else cooks the food. For the first three days the diet of the mother consists of *Namu* fish and boiled rice without any salt.

Name-giving.

On the morning of the day appointed for the name-giving ceremony, the child is bathed in tepid water, and all the inmates of the house change their clothes. All old and used earthen-ware utensils are thrown away, but wooden and metal utensils are merely cleaned and carefully washed. The villagers are invited to the ceremony. An old man (either a relative or simply an esteemed Chawte fellow-villager) is asked beforehand to select a name. He selects a name and in the presence of assembled friends and relatives calls out the child by that name from the door-way and drops some *Zu* on the threshold in the name of the ancestor-spirits of the child. Then the mother's father or mother's brother of the baby sacrifices a cock to his ancestor-spirits by pressing its neck with his hands. The father of the babe similarly sacrifices by pressing its neck a cock to his ancestor-spirits. The meat of the two fowls is cooked and the cooked meat is distributed only to children as they alone may eat it. The villagers are treated to a hearty drink.

The ears of children are bored for the wearing of ear-ornaments, but no rites are connected therewith.

Ear-boring.

Neither tatooing nor cicatrization is practised among the Chawtes of the village we visited.

Tatooing etc.

V. **Death Customs.**

The village burial-ground is situated outside the village. The corpse of a deceased Chawte is bathed in cold water and carried by two men on a bamboo bier prepared for the purpose. As soon as death occurs, care is taken that the head of the dead person point east and the legs point west; if necessary, the corpse is moved for the purpose. A pit is dug with its length from east to west. The body is slid down into the pit on its back, with its face upwards, and its head pointing to the east. The son or other near relative places the old clothes, weapons and ornaments, if any, of the deceased, by the side of the corpse. Then the pit is closed up by filling it in with earth; and a small mound of earth is raised over it. On the grave of a man, a common human figure is carved on a post planted in the middle of the grave. If the grave is that of a female, a post is planted on the grave, and over it are placed a basket, a winnowing-fan and a hoe.

Then some male relatives place some *Zu* in a small bamboo-cup or in a gourd-vessel, and some

meat and rice on a leaf-plate. Food and drink are supplied to the deceased in this way every third day from the date of the death until the twelfth day.

The Chawte observe no death-pollution, except that only the people of the family refrain from work for three days. On the third day after death, the villagers who accompanied the corpse to the burial place are treated to a hearty drink.

There is obviously a belief in an after-life.

VI. Religion.

Unfortunately, owing to shortness of time, the materials I could collect under this head is very meagre, and the account is necessarily scrappy, and no proper picture of Chawte religion can be presented.

The village-priest is called *Athimpu*. The "keeper" of the deities is the village head-man called *Laipu*.

Deities and Spirits :—I could get the names of the following deities and spirits of the Chawte pantheon. But unfortunately I had no time to collect detailed information about them :—

- (1) **Sorerrail:—**This is the tutelary deity of a Chawte village.
- (2) **Thuithei :—**This is a water-spirit or rather river deity.
- (3) **Sanglairemma :—**This is the deity or spirit who presides over the crops.

(4) **Pakhamba** :—This is a serpent deity or spirit.

(5) **Ancestor-spirits.**

In the house of the Chief (who is also the "Keeper" of the deities) there may be seen two big round stones. The bigger one is called "*Lai*" and the smaller one "*Laisang*". They represent the village deities. No one is permitted to worship or rather offer any sacrifices to them without permission. (1) *Sorerail* :—Ceremonies for the propitiation of this spirit or deity are held on the 5th day of the month of *kalan* (April-May). The Chief or *Laipu* announces the date beforehand and it is imperative that nobody should go outside the village on that day otherwise the offending person has to pay a fine and also to beg forgiveness of the Chief and to sacrifice a cock in front of the two stones.

On the day of sacrifice, the two stones are washed and decorated with leaves and flowers, by the village-chief or *Laipu*. The *Athimpu* (village-priest), in the presence of the assembled villagers, offers libations of *Zu*, and sacrifices one or more fowls in front of the two stones representing the deities.

Then the *Laipu* and the *Athimpu* go towards the village-gate at the end of the village followed by the villagers. All must attend. If any one is ill or otherwise unable to attend he must take leave of the Chief. And, in any case, no Chawte of the village on that day.

Then at the gate, the *Athimpu* pours libation of *Zu* on a plantain leaf and then offers leaves and flowers to the village deities and spirits. He then sacrifices a goat or a pig purchased with money contributed by the villagers. The blood of the sacrificed animal is dropped on the ground before the village gate. The four legs of the animal are cut off and placed there. Then again *Zu* is offered. The head of the animal is placed on a stick planted at the gate. This is done to avert calamity from the village by preventing disease-spirits or other mischievous spirits from entering the village and afflicting it or taking away its 'luck'.

The people then return to the Chief's house where the meat of the sacrificed animal is cooked and offered thrice along with libations of *Zu* over the said stones. Then every one bows down on the ground before the stones, takes some cooked sacrificial meat, and goes home with it. The rest of day is spent in dancing and drinking by all the Chawtes of the village.

(2) **Tuithei** :—The public propitiation of the river-spirit—*Tuithei*—takes place in the month of *Inga*. The sacrifice of a pig and libation of *Zu* are offered to this deity or spirit by the side of the nearest stream or river. No one must draw water from the river on that day before the *pūjā* or sacrifice is over.

(3) **Chhakona** :—This is the paddy-festival held when rice-grains are just filling the ears, in the month of *Mena* (September-October). The crop

spirit *Serghiremma* is worshiped by the *Athimpu* in front of the house of the *Laipu*. The date of the festival is announced beforehand by the *Laipu*.

A red fowl (killed by pressing its neck), a pig (killed by the axe), and *Zu* are offered to the deity in the morning by the *Athimpu* who sits facing east (the "rising sun", as they say). A pole is planted on the ground with some paddy stalks or sheafs attached to it at the upper end. This is done for the growth of paddy crops and in order that there may be proper rain and sun-shine. At night young men and women dance on the village dancing ground called *sangran*. This dance is known as the *Chhakona* dance.

(4) **Pakhamba**:—This serpent-deity is worshipped by individuals in their respective houses on any Sunday (but not on any other day of the week). The master of the house offers rice, eggs, and plaintains, to the deity at night on a plaintain-leaf.

(5) **Ancestor-worship**:—The Chatwes stand in great fear of the displeasure of their ancestor-spirits. At a marriage, at a name-giving ceremony, and in every *pūja* or festival, every *Chatwe* male must offer *Zu* to his deceased ancestors. After the *Sorarail pūjā* a Chawte must lay out on a leaf-plate food over the graves of the deceased persons of his family.

As the Clan has been broken up and scattered in different villages not within easy reach of one another, no periodical clan ceremonies or feasts are celebrated by

the Chawte families in the village where I collected my information.

The Chawte Kuki Clan are believers in witchcraft and sorcery, but I regret that **Witchcraft.** for want of time I could not collect any information on this interesting topic.

VII. **Method of Investigation : an Explanation.**

The 'Notes' on the Chawte Kuki clan were prepared from ethnographic material collected by me at village Chawte on the west bank of the Logtak Lake in the Manipur State of Assam, in October-November, 1931, in connection with the Calcutta University Post-graduate students' tour to the Manipur State. None of our party knew either the Meithei or Manipuri language nor *Chawte* which is an Old Kuki dialect spoken by the Chawte-Kuki clan. Thus I had to depend entirely on the services of an interpreter named Nachak who belonged to the old Kuki clan called *Vaiphei*. This interpreter unfortunately did not know *Chawte Kuki* dialect himself but only knew Meithei and his own *Vaiphei* (another Old Kuki) dialect, and could speak a sort of broken Hindi and a little broken English; so that he interpreted my questions to my Chawte informants in the Meithei tongue and reported their answers to me in broken Hindi.

The collection of these notes by this "third-hand" process was naturally very tedious and dilatory and the ethnographic material thus collected is

necessarily incomplete and meagre. Nor can I vouch for the accuracy of all the information gathered by me regarding social organization and customs, for although I could not understand the conversation between our Chawte informants and the Vaiphei interpreter it was easy to infer from the manner in which the proposed answers to some of my questions were hotly discussed among themselves by our Chawte informants that there were differences of opinion amongst them as to some of the answers; but unfortunately my interpreter refrained from giving me the different views on any question but would give only one answer, either the one which the majority of the Chawte informants returned or, perhaps in some instances, the one which coincided with his view, whether it was the general opinion of the Chawte informants or not.

III. A FEW FASTS, FESTIVITIES AND OBSERVANCES IN ORISSA.

[Continued from p. 67 of vol. XVI, No. 1 (January-March, 1936).]

By

NARAYAN TRIPATHI, B. A.

II. The Maha Lakshmi Puja.

(b) *Sudas'ā Vrata*.

The literal meaning of the word "*Sudas'ā*" is "good fortune" (*Su* means good, and *das'ā*, fortune), and the underlying belief is that this *vrata*, if duly observed, expels misery and brings about prosperity, happiness and comfort. As the number *das'ā*, ten plays a conspicuous part in the performance of this *vrata*, it is not unlikely that the naming when originally coined might have had some reference to the word *das'ā*. It is a Lakshmi *vrata*, pure and simple, and is observed only by the fair sex. All the female members in an Ōṛiyā home, whether young or old, widowed or having husbands living, rich or poor, high or low, observe it faithfully with sincerity and devotion without any distinction of caste and creed. Only the maiden daughters and married girls who have not yet gone to their mother-in-law's house are exempt. If the *vrata* day falls during any *as'oucha*, impurity period, the ceremony is observed by proxy.

The *Sudas'ā vrata* day falls whenever the tenth *tithi*, (lunar day) of the bright fortnight in any month happens to be a Thursday. Consequently

it is not an annual or seasonal *vrata*. It is almost customary in Ōṛissā, especially with the mistresses living in thatched houses with mud walls, to get the floors of all their important rooms with adjacent *verandās* smeared with the solution of earth and cowdung, at the dawn of every Thursday. But it is rather obligatory to have this done on the *Sudas'a vrata* day. The courtyard is also swept clean, and sprinkled with cow-dung-water, and all arrear works are finished before the sunrise. After taking their bath the ladies put on ceremonial decorations. They then attend to daily household duties, such as preparing food for other family-members, *etc.*, and finish them as quickly as possible. This done, the hearth and the kitchen are cleanly smeared with cow-dung solution. The ladies then wash their hands and feet and put on silk or cleanly washed cotton *s'āṛī*s of white colour. The new bride observing the *vrata* for the first time puts on a new silk or cotton *s'āṛī*, but, in the case of others an old one, fresh from the washman's house may do. They then set themselves to the preparation of the *bhōga*, offerings for the goddess, which are purely *sātvika* in character and generally consist of *khiri*, (rice-milk) and *piṭhā* (cakes). After these and Sundry other things are finished, which usually keep them engaged up to midday, the ladies go to the *Pujā-ghara*, and set about preparations for the actual Pūjā.

The floor of the worship-room and the adjacent *veranda* are cleanly smeared with a solution of earth and cow-dung unless this has been done previously. The *Erundibandha*, or lower door-sill of the

room is painted with *chita* of "j'hunti" and *Lakshmi-pāda*, pairs of Lakshmi's foot-prints. Beginning from the foot of this lower door-sill, right up to the exact spot in the room where the goddess is to be invoked, is painted in *chita* a big creeper with stalks of leaves, buds and flowers, with a large beautiful lotus flower of eight petals, painted at the top.

Within this lotus flower is drawn a perfectly square-sized "*koṭhi*" granary with its door towards the entrance door of room. Within the door of the *koṭhi* is written a pair of *Lakshmi-pāda*, and inside the *koṭhi*, the respective *santaka* (a mark or sign indicating mostly the allocated profession of a particular community) of the votary, e.g. the symbol of a "*kuś'a-vaṭu*" is painted in a Brahmana's house. Outside the lotus flower are painted many other small *chitas*, one for the *kalas'a* or sacred pitcher, one for keeping the *bhōga*, one for flowers and others for sundry other things required for the worship. Above the *koṭhi* is placed the beautifully engraved small *pidhā* (a small wooden stool-like structure to squat upon) with its upper surface painted with *chitā* of lotus flower and foot prints, and with spots of minium at its four corners as well as in the centre. A copper or silver coin is kept in the centre and is given with vermillion-mark. Around the coin are placed ten full-grown uncut betel nuts previously washed in turmeric solution, and mark with vermillion-spots on their tops. Ten fine threads of silk or cotton are brought and twisted into a single cord. This cord is again twisted in three plies into a very fine string nearly one cubit long. This string, called by the

name of "*vrata*", is washed in turmeric solution and is kept near the betel-nuts. Ten new blades of *duva* grass and ten leaves of *bara-koli* (jujube tree), all wrapped up in a piece of plantain-leaf in the form of a tube, called *kāhālī*, are kept beside this sacred *vrata* and betel-nuts. The *kāhālīs* kept by the widows do not contain any flower, but those kept by the ladies having their husbands living, contain ten kinds of flowers—five of white colour and five of red colour. A small quantity of turmeric-powder is also kept on the *pidhā* near the *kāhālī*. In front of the *pidhā*, the usual *kalas'a* of sacred pitcher is set up; and near it are kept the *bhōga* offerings consisting only of ghee-cakes, ten in number, or ten handful of cheese and *gūr* molasses mixed together, as their substitute, the flowers and other sundry things. A *ghee-dīpa* (lamp) is lighted and other perfumes burnt. Then the goddess Lakshmī is invoked mentally by the ladies by waving the *ghee-dīpa* seven times amidst joyous *hulu-huli* sounds.

After this the family-priest, or, in his absence, an elderly Brāhmaṇa recites the *Sudas'a vrata-kathā* story from the palm-leaf *kheda*, and the ladies observing the *vrata* hear it with rapt attention and reverence. At a certain stage in the story when the ten Names of Mahā Lakshmī are recited, the ladies take out their respective *vrata*-strings from the place of worship, and give ten sacred knots in it. Each knot is tied with the utterance of one divine name, i.e. the first knot is tied with the utterance of the name of Mahā Lakshmī, the second with the utterance of the

name Kamalā ; of the third, Padmā ; the fourth with with the name of with that of Hari-Priyā ; the fifth, with that of Dāridya-bhanjanī ; the sixth with that of Kaumodakī ; the seventh with that of Gaja-bāhinī ; the eighth with that of Chañchalā ; the ninth with that of Jānakī and, the last with that of Rukmiṇī. The knots are tied almost at equal distance from each other. When this is finished, the sacred *vrata* is kept in its former place. After the recitation of the *kathā*-story, the offerings are presented to the goddess. There the farewell ceremony of the goddess is solemnised by the ladies by waving a *ghee*-wick or a *ghee-dīpa* seven times amidst the usual *hulahuli* sounds. After this, the *vrata* is worn either by rolling it up two or three times round the arm just above the elbow-joint, or round the neck. The *durbā* grass (and flowers in case of ladies having their husbands living) kept in the *kāhālī* are held on the head ; the coins are made over to the priest ; the flowers and other things including the betel-nuts are thrown into the water of a pond. That day the ladies partake of the *prasāda-bhōga* only. The offerings to the goddess Lakshmī may be taken only by the family-members and none else. Even married daughters are not allowed this offering.

The *Sudasā-vrata* string, simply called the *vrata* is held by its wearer with the utmost respect and is never put off except during the period of confinement. It is never allowed to be lost. Its accidental loss is considered very inauspicious, and the lady who loses it abstains from eating any till she gets another to replace it. No

one, parts with any of her *vrata*-strings even for nearest kith and kin her. So to meet such exigencies and also to provide against the casual snapping of the string, each lady prepares one or two additional *vratas*, gets them duly sanctified on *Sudas'āvrata* days, and keeps the spare ones in a safe place for future use. The old ones, unless they are too old or broken, are also kept with the spare ones to meet casual demands.

The *Vrata-kathā* story recited on this occasion is briefly as follows. It is a specimen of the oldest prose-writing, or, prose-translation (13th-14th century A. C.) in Ōṛiyā literature.

“On being requested by Vaivasvata Manu, sage Agastya told him the following MahāLakshmī-kathā from the Padma Purāṇa. By listening to this story one attains wealth, progeny, long life and strength; and a female acquires blessedness (lit propitious signs. In the golden age there was a King named Bira Bikrama. His queen's name was Ratnābatī, his minister's name was Trikuṭeśvara, and the minister's wife's name was Padmāvatī. One day the two ladies went to take a bath in the sea. There they saw celestial nymphs descending from the Svargapura and taking bath. There was an open *mandapa* in the shore. In that *mandapa* the celestial nymphs had drawn a circle, and lighting a *ghee*-lamp were worshipping the goddess “*Gosāṇī*”. On being questioned by the ladies the celestial nymphs told them, “This is our *S'rī Sudas'āvrata Oshā*. Its observance brings fulfilment of

one's desires. You may observe this *vrata*. Let it be celebrated in the land of mortals (the earth.)"

On the ladies desiring to know more about this *vrata*, the nymphs gave them detailed information as to when it occurs, how it is observed and what things are required for the worship. They also taught them the sacred ten names of MahāLakshmī, with the recitation of which ten sacred knots are to be tied in the sacred thread called the *vrata*. The nymphs also told "an ancient story" which is briefly as follows :—

There was a king named Vira Vikramāditya. His queen's name was Sulakshañī, and his minister's wife was Dulanī. When both these ladies died, the Yama Rājā (the God of Death) took account of their respective sins and pieties, and assigned to the minister's wife a superior place. The queen inquired as to why, in spite of her having held a higher rank in life, she was being given a place one step lower than the minister's wife's. The gods replied, "Because you have not performed the *Laksmī-vrata*." The minister's wife has gone to heaven through the efficacy of that *vrata*. If you observe that *vrata* in a future birth, you will attain the same state." In course of time, they were both re-born on this earth. The queen was born in the minister's house, and the minister's wife in a royal family. They were married in their respective ranks, i.e., the princess to a prince, and the minister's daughter to a minister's son. They contract ceremonial friendship in the "Maitra"

form and lived in the same town. In course of time, the tenth lunar day of the bright fortnight in the month of Jyestha fell on a Thursday, and consequently it was a day for observing the *Sudas'ā vrata*. The queen came to know of it from the minister's wife and asked the king to make necessary preparation. The *rājā* made elaborate arrangements, and the queen performed the *vrata-pūjā* faithfully in the prescribed manner. Then, a few days later, the minister's wife accidentally lost her *vrata*. As she could not find it in spite of most careful search, she resorted to fasting. After three days' complete fasting she grew very weak and exhausted. The minister went to the *rājā* and said, "Oh my lord! my wife is now dying. Her *Sudas'ā-vrata* has been lost and cannot be found. So she has abstained from taking any food or drink, and will continue to do so until she gets another from some one else." The *rājā* enquired whether any one else in his kingdom had observed this *vrata* so that he might obtain an old thread from her for the minister's wife. He was told in reply that in his own palace the queen had observed the *vrata*. So he went to the queen and asked for an old *vrata*-string. The queen sternly refused the request saying that if she would part with her *vrata* string for the minister's wife, all her wealth would go to her. The *rājā* pressed hard but still she remained obdurate. So the king forcibly snatched away the sacred string from the queen's

arm and made it over to the minister. The latter gave it to his wife who after taking bath, putting on a white silk *s'ārī*, and remembering the goddess Mahā Lakshmī, tied it round her arm and broke her fast. Very shortly afterwards it so happened that the king lost all his wealth and kingdom. The minister and other state officials misappropriated all the money and left the treasury empty. Then they demanded more money from the king, saying, that unless he could satisfy them he must abdicate the throne and make room for another to be selected king by them in his place. At this, the king after consulting the queen decided to give up the throne and leave the country. The queen requested him to take her with him and he agreed. They had two sons. The four left the country, and were going to the forests, while in the way, goddess Lakshmī, moved to pity at the distress of the sons, miraculously removed them, and leaving them in a Sādhaba's house, disappeared. The king and the queen entered the forests. There they could not find any thing to eat. The forest-fruits disappeared at their sight. Distressed with great hunger, they at last arrived at the edge of a tank. The queen said that she had brought one *māṇa*-ful of broken rice with her. The *rājā* requested her to cook that rice for him as he was feeling very hungry. So saying he entered the tank for a bath. There he saw two dead fish floating. He took them to the queen and asked her to get them parched for him. The queen thought within herself that because the goddess Lakshmi had left the

rājā, so, he behaving in this manner. As soon as the queen threw the fish into the fire than they through the *māyā* or illusion of Lakshmī, jumped out of the fire into the tank. The *rānī* was taken a back at this strange occurrence. When the *rājā* came, the *rānī* told him of this, but he did not believe it and suspected her to have played some trick. After taking food, husband and wife wandered hither and thither in the forests until they reached a country named Kamalinī Des'a. There they sat under a *S'ala* tree and prayed fervently to Lakshmī. Hearing their prayer the goddess was moved to pity and appeared before them in a vision and disappeared. The couple went on and entered the town of Kamalinī. There lived in that town a *Sādhaba*, Lakshmīdhara by name. The *rājā* went to him while the queen following another road, reached the bank of a tank. There she sat down and felt mightily distressed. After a while, the *Sādhaba*'s wife with her seven daughters-in-law and seven grand daughters came to the tank for ablutions. She took pity on the *rānī* and offered her shelter in her house. The *rānī* agreed to this on condition that she would on no account be asked to touch the remnants of food and clothes worn over night. The *Sādhaba*'s wife promised to treat her as a daughter to her. In his turn, the *rājā* appeared before the *Sādhaba* and begged of him for a house to live in so that he might subsist on alms. The *Sādhaba* replied that beggary was not allowed in that country, and offered him a service in his house. The *rājā* agreeing, was appointed as a domestic servant called "*khi-*

riṣaṇa". A few days later, the *Sādhava* asked the *rāja* to carry a load of rice and different kinds of curry on his head to the corn-field. The *rāja* had not gone far when the goddess Lakshmī, coming to know of his misery, miraculously threw away the load from his head. "You are a great sinner!" cried out the *Sādhava*, but looking at his body saw him look like a *Vidyādhara*; so he remained silent. Then, after a few days an eclipse took place. All went to the river for bath. The *Sādhava's* wife asked the *rānī* to accompany her to the river, but the *rānī* said that she would follow her shortly after. Then the *Sādhava's* wife went away to the river with her daughters and daughters-in-law after making over a casket containing sundry things belonging to them, to be taken by her. When left alone, the *rānī* was overwhelmed with thoughts of her misfortune, and in her grief she sat down and drew an image with a chalk. Strange to say, an illusory goose came out of that image, devoured the casket and disappeared. The *rānī* was astounded at this strange event. When the *Sādhava's* wife came back, she asked for the casket. She *rānī* told her of the strange occurrence. She took the *rānī* to be one who had incurred the displeasure of the goddess Lakshmī and said nothing. After a few days a *Sudasā Vrata* day came round again. The *Sādhava's* wife made preparation to observe the *vrata* duly. At her request the *rānī*, too, observed the *vrata*. When the *puja*-worship was over, the *rānī* wept bitterly and prayed fervently to Lakshmī. The

goddess was pleased with her, and appearing before her as if in a dream said to her "You gave me to another, so you have had to suffer so much." The goddess also appeared before the *rājā* in a similar way, informed him likewise, and gave him hope that he would very shortly be made a king, and then disappeared.

In the meanwhile, side, after the departure of the *rājā* into the forests there ensued severe internal conflict and turmoil in his kingdom, bringing anarchy and confusion and threatening its very existence. Every one wanted to be king himself, and there were never-ending mutual quarrels. Then a minister Sujāṇes'vara by name said, "I cannot elect anybody as king. Now, you all do as I say. Let us decorate the the "Pāṭa-Hastī"—the royal elephant—and place the golden Kalas'a (pitcher) over it. He will be our king over whose head the royal elephant will pour out the water from the golden pitcher." All agreed to this and, adorning the royal elephant and placing the pitchar over it, said, "O Elephant! Pour out the water over one who would really be an acquisition to the State; bring him on your back and make him our king." Saying this, all persons bowed to the elephant and bade it farewell.

The elephant went on following the path by which the *rājā* went in exile, and arriving at the town where Lakshmīdhara Sādhaba lived, poured the water over the head of the *rājā*. He sent for the Sādhaba, but the latter got terrified, and concealed himself. The *rājā* was greatly astonished,

but considering the Sādhava to be his great benefactor ordered the messengers to find him out, failing which they would be beheaded. This time, they successfully traced him out and brought him to the *rājā*, who after expressing his gratitude for the shelter and means of livelihood he had provided him in times of his distress, asked him to accompany him to his kingdom, riding on the elephant. The *rāṇī* accompanied by the Sādhava's wife went in a "hāndolā". On the way, at the edge of the tank they saw the two previous by dead fish still lying. At this they laughed. After a while, during their journey, Mahā Lakshmī in the guise of a Brāhmaṇa gave them their two sons. The *rājā* entered his State, assumed its government and built a new palace for the Sādhava to live in.

After a few days the *rājā* asked the queen why they lost their kingdom, and again for what meritorious action they got it back. The queen replied, "You made over my sacred *vrata*-string to the minister. So you lost your kingdom. Again, I observed the *vrata* in the Sādhava's house; so you got back your State." At this, the king summoned a Brāhmaṇa and heard from him the mode of observing this *vrata*. At first, the ingredient to be used for the rites should be ten stalks of *duva* grass, ten grains of rice, ten kinds of flowers and ten "*mandā*" cakes, ten threads of cotton twisted in three plies. But in the fourteenth year, the completion ceremony takes place. This time all those ingredients are to be made of gold, and also ten golden pitchers and ten golden cases to hold eye-paint, and also

ten sacred threads (*paitā*). The *rājā* observed the *vrata* in this prescribed manner, and thereby obtained rulership first over one *dvīpa* (continent) and then over all the seven *dvīpas* (entire earth). All these happened through the performance of this *vrata* which is a *vrata* of the goddess Lakshmī. Such is the divine power of this *vrata* that he who observes it assiduously gets heavenly wealth. Those who read this story or hear it, never become poor. Thus closes the prosperity-giving story of Śrī Śrī Śrī Lakshmī.

III. The Dutia Osha.

The Dutia Oshā is observed in honour of "Duti-vāhana" (a corruption of the name "Dyuti-vāhana,") one whose vehicle is Light, a son of the Sun-god, after whom the Oshā is named. The attractions of this Oshā are that it removes sterility in case of barren women, grants long life to the offspring in geneneral, and particularly of those mothers whose issues die either in the womb, or in their infancy or childhood. It liberates from their respective sins such ill-fated or fallen women as have brought disgrace to or forsaken their families, or have conceived during a period of lunar eclipse. It is believed to be an antidote to ghost-possession, and to cure all sorts of uterine-disease. In short, it is preeminently an Oshā observed by the female-folk, solely for the sake of their children, present or future, to insure their good health and long life, and although in the matter of the severities involved it is second to none, it is very widely popular and is observed most earnestly and willingly by the fair sex in Ōrissā without any distinction of caste or creed, age or condition. Even unmarried girls and widows having any children living, whether rich or poor, high or low, are found to observe the Oshā with equal rigour and devotion.

The Dutia Oshā takes place on the eighth *tithi* or, lunarday of the black fortnight of the month of Ās'wina. But practically it begins one day earlier, i.e., on the seventh *tithi*, (*Saptamī*) which is called the "*Ekabāra*," "one meal" day

for the fact that the females intending to observe the Oshā are to take only one meal on that day. In the morning of this Saptamī, the females collect and put together in a winnowing-basket, a few bamboo-leaves, one "*bajra-mūlī*" plant, an arum (yam) plant with root and leaves, three tooth-sticks of "*apamāranga*" plant (*Achyranthes aspera*) a few leaves of cucumber and "*jahni*" (*Luffa acutangula*), a few flowers of cucumber (*Cucumis uttissimus*), "*pāṇi-kakhāru*," white pumpkin, and "*hara-gaurā*," pastes of turmeric, and "*am-elā*" (*Phyllanthus emblica*) and fenu-greek, an iron case used to hold eye-paint, a wooden gallipot used for holding vermilion, and a small quantity of *ghee*. Holding the baskets in hand, all the females of the village go together to the village-tank for bath, making *huluhuli* sounds throughout the route. There, at the bathing *ghāṭ*, they clean a place, raise a small '*vedī* or altar in sand, and draw on it two figures, one of the bird *chīla* or kite, and the other of *s'āla* or vulture. They arrange all the flowers, leaves and plants brought in the basket, over the figures and also two tooth-sticks for tooth-brush meant for them and sprinkling over them drops of turmeric-paste-solution for ablutions, they anoint their own bodies with *ghee* and pastes of turmeric and *amelā*; and, taking the remaining tooth-stick they enter into the tank for bath. This over, they make humble salutations to the Sun-god, and then dipping into the water they bring two handfuls of sand in both the hands keeping the wrists cross-wise, and going straight to the figures

of "*chila*" and "*s'āla*" in that fashion, they place before them the two handfuls of sand upon two leaves of cucumber or "*jahni*" creeper. Upon two other leaves of the same creeper, a little water is poured; and the whole function is marked with constant *huluhuli* sounds. Thus each lady is to give two leaves full of sand called "*vālunka*" and two leaves containing water. They then make marks with *kala* or *sindura* eyepaint and or vermillion on the figures, and taking them (*kala* and *sindura*) themselves they return home silently and without looking behind, after a visiting the *grāma-devātā*, or village-goddess on the way, and making humble obeisance to her.

At home, they prepare *khechedi*, and a dish of twenty-one kinds of *S'āga* greens mixed together. "*Lenṣiā S'āga*" is rigorously excluded. These "*bhoga*" offerings, when ready, are made to "*Duti-vāhana*" in a room. A spot at the back side of the house is swept clean and besmeared with cowdung solution. There two handfuls of the above *khechedi* and '*s'āga*' offerings,—are served upon two leaves of cucumber or *jahni* creeper, and water is given on two other leaves of the same creeper, for the *chila* and *s'āla*. Then the females are to partake of this '*bhoga*' offering as their only meal during the day and to take nothing else. At some places offerings are made to "*Duti-vāhana*" at dead of night.

Next day, on the *Ashtami tithi*, which is the actual *Dutiā Ushā* day, the females bathe in the morning but observe absolute fast not taking

even water. They avoid all kinds of work as far as practicable. In the evening, they go together to the village tank for another bath, uttering *huluhuli* sounds in the way. They carry with them baskets containing the same articles as before. At the bathing *ghāṭ*, the same ceremony of worshipping the *chīla* and *s'iala* is repeated as on the previous day. On their return home, with body and mind thus purified, they put on *S'aris* of white colour and other ceremonial decorations. A clean spot in the court-yard, preferably at the foot of the *Tulasi-chaurā*, is selected and is besmeared with cow-dung-solution for preparing the "*koshṭhi*" or "*koṭhi*". A mimic miniature tank (nearly one yard long, 8-9 inches broad and 5-6 inches deep) is dug with mimic bathing *ghāṭs*, one on each side. This is filled with water and a living "*gaḍisā*" or "*chenga*" fish is left in it. The portion inside this tank left undug is called the "*Dīpi-danḍi*" or "*Dīpa-danḍa*", island-pole or light-pole. Just in the middle of this *Dipidanḍi* is planted, a full-grown plantain tree. With it are also planted a "*Bajramuli*" shrub, a grown arum root with leaves, a sugar-cane plant, and a thin bamboo-branch with leaves. The plantain tree represents the God *Duti-vāhana*. On the southern bank of the miniature tank are planted a "*Bāsanga*" Shrub (*Justicia adhatoda*) and a branch of "*Jui*" (*Jasminum auriculatum*). These two are said to represent, one a barren woman, and the other a woman whose children die either in the womb or in their infancy. On the eastern bank; a figure of the Sun-god is drawn in the *muruja*-

powders of three colours, white, black and red. On the northern side, the figures of "*Chila*" and "*Siala*", and on the western side, the palace of the god *Dutivāhana* are drawn with the same "*muruja*-powders. The plantain-tree and other shrubs are marked with vermilion-marks, *Kajvala*, -sandal paste and other perfumes amidst peals of *huluhuli* sounds. In a basket are arranged twenty-one articles meant for the *pūjā* offering, and they are brought to the "*Koṭhi*" covered with a piece of new cloth, called "*pāhāḍā*". This new cloth is subsequently wrapped round the plantain tree, or, if sufficiently long, round the whole *Koṭhi*. The twenty-one articles are:—sugarcane cut to pieces; the sweet potatoe; cocoanut; ripe plantain; pulses of *māg*, *solā* (gram) and *baḍachana*, all three in sprouting condition; orange; radish; cucumber; *maka* (maize); *Karamangā* (*Auerrhoa carambola*); *nān* (*Dillenia indica*); *jambhila* (*Engenia alba*); lime; *Keranjā* plumb; lotus-seed; jahni (*Luffa acutangula*); pumpkin; betel-leaf; betel-nut; *narakoli* plum and ginger. A *ghee-dīpa* lamp is burnt, and the Brāhmaṇa priest conducting the *pūjā* takes out some of these articles from the baskets and throws them into the "tank". Twenty-one *gandas* (four units) of *cowries* (or a smaller number in the case of poor people, or, small copper coins in their stead) and an equal number of betel-nuts are thrown into the "tank".

When everything is ready, the Brāhmaṇa takes his seat on one side and begins reading the *Oshā-kathā* story from the palm-leaf manuscript *Khedā* (see below), and the women listen to it

with rapt attention and reverence. When the *Kathā*-telling ends, the Brāhmaṇa, amidst peals of *huluhuli* sounds from the women, presents oblations of cocoanut-water to the plantain-tree representing the god Dutivāhana, and offers formal pūjā of the above articles to that god. This over, people leave the place, leaving all the things there as they are, except those thrown into the "tank" which are taken by the Brāhmaṇa as his perquisites.

Next morning, one of the women observing the Oshā, especially a barren woman or one whose children die in their infancy, uproots the plantain tree and holding it in the hem of her S'āṛī cloth goes to the village tank, accompanied by other women, and throws it into water amidst repeated *hulhuli* sounds. There at the bathing-ghaṭ the previous days' function of worshipping the "*Chila*" and "*Siala*" is repeated. But this time the actual *bhōga* offerings of the previous night, consisting of *Muga* and *buṭa* pulses in sprouts, pieces of sugar-cane stem, cocoanut-kernel, cucumber, *dahi-chuḍa* (curd and flattened rice mixed together with a little quantity of *gūr* or raw sugar) *etc.*, are presented at the *vedī*. Finally, the flowers, leaves, *etc.*, and the sand with which the *vedī* was made are thrown into the water. There, the *prasāda* offerings are distributed to the children present, and then among the women who break their fast at the bathing *ghaṭ* with those offerings. Sometimes an amusing interlude is enacted at this stage. A child whose birth is solely attributed to the grace of the God Duti-vāhana, is made to stand at the *ghaṭ*, and his mother with the aid of another woman holds

the *pahādā* cloth over his head in the fashion of a canopy. The *bhōga* is spread over the cloth and all the children and women present there begin to snatch away handfuls of the *bhōga*, imitating kites and vultures. Some exertion to the boy is inevitable but this is believed to turn away the evil effects of his stars.

When the proceedings at the bathing *ghaṭ* are over, the females go to pay homage to the village-goddess, and after distributing the *prasāda* there to the children, return home. All the vegetables and herbs which were offered on the preceding night are now chopped minced cooked and together as a curry called "*ghaṇṭā tīṇā*" or "*ghaṇṭā tarkārī*", which is distributed in sufficient quantities to neighbours. This curry has a very palatable taste.

The *kathā*-story recited on this occasion is briefly as follows :—There was a country named "Surya-Manḍala" which contained 36 *pāṭaka*, (groups of *prajā* or subjects), under a king, Surakshita by name. In that kingdom there lived an accomplished and very beautiful Brāhmaṇī, Durlabhā by name, who was widowed in her childhood. In the rainy season, one day, the king summoned all the *kuṭutunīs*, (women who husk grain for hire) of his State, gave them a quantity of (unhusked) paddy grains, ordered them to prepare and supply the necessary amount of rice on the fourth day without fail. The widow Durlabhā was one of them, and was placed in charge of the whole lot. After the departure of the women with the paddy, it so happened that continued

showers of rain fell, and the boiled paddy-grains could not be dried as a preliminary for husking. At this Durlabhā got frightened, as the failure to supply rice on the fourth day would amount to disobedience of the king's order, involving very serious consequences. She was a devotee of the Sun-god from her childhood and used to recite hymns daily in his honour. Now, in this crisis, she bethought herself of Him (the Sun-god), prayed for his help, promising in her anxiety that if, at least, for her sake, there would be sunshine only for that single day, she would most gladly accept Him as her husband and do the duty of a devoted wife toward Him. At this the Sun-god was pleased. Sun-shine appeared and dried all her boiled paddy grains. When night came, she thought within herself that as she had made a solemn promise, the Sun-god was sure to come and visit her. In order to preserve her chastity she decided to break her promise and thought out a plan of deception. She had a maid-servant called Sapanī. She decorated her nicely with dress and ornaments, and making her sleep in her own bed asked her not to get frightened if any male would visit her, but maintaining silence would surrender her body to him on the mere asking. So saying she left her alone and slept in the maid-servant's bed. At midnight the Sun-god came, dispelling darkness in his light, but finding the maid-servant sleeping well-decorated in the Brāhmaṇī's bed, and thinking it beneath His dignity to touch the body of a female-servant, soon left the place. Before He

came back in disappointment. He however urinated in the field of *Lentīā Sāga* green sown in the court-yard of the Brāhmaṇī. When day dawned, Durlabhā enquired of the maid-servant about the occurrence of the night and was told that nothing unusual happened except that the sun-shine appeared for a while in the night. The widow did not say anything further, but asked her to collect *sāga* greens for her morning meal. Without entertaining any suspicion in her mind, she naturally plucked the *Lentīā Sāga* growing in the court-yard and made it over to the Brāhmaṇī, who, after bath, fried and took it. But it so happened that while the Sun-god urinated at the root of this *Sāga*, during the previous night, he left his semen which the herb retained, and by taking it the widow became pregnant as the semen of the god was imperishable. The news about her pregnancy soon became widely known. She was arrested and taken to the king who ordered that nobody should see her face. She was driven out of the town. She built a hut in the outskirts and lived there as a fallen woman. In due course, she gave birth to a beautiful son just at sun-rise on the eighth lunar day of the black fortnight of the month of Ās'vina, in the *Mūla nakshatra*, *Mithuna lagna*. This son was known by the name of Dutī-vāhana. He grew like moon in the white fortnight and, when five years old, he was sent to the school. There, one day his writing chalk slipped from his hand and rolled down. He asked a "Dosaḍhu" boy to pick it up for

him, but the "Dosadhu" scornfully refused the request, calling Dutivāhana an illegitimate child. The boy took the jeer to heart, and, blind with rage and weeping he went to his mother and demanded her to show him his father next morning. At dawn the next day, pointing to the rising sun in the east, the mother said, "Look, my son, that is your father." At this the boy bowed down to the Sun-god and enquired why then his mother was being called an unchaste woman. The father replied, "My boy, your mother will be worshipped on the earth. All barren women will be blessed with children by worshipping her. People will revere her as a "*Satī*" (chaste) lady, and in her honour this Oshā will receive wide currency in the world on the Ashtamī in the dark half of the month of Āsvina." Saying this, the Sun-god dismissed his son with gifts of celestial clothes and ornaments both for him and his mother. Dutivāhana came back to his mother. She put on the dress and jewelery sent by her husband, and looked like a goddess. Since then the Dutia Oshā was introduced in this earth; and it is being observed with zeal and devotion by women desiring to have sons or wealth.

Once upon a time, on a certain Oshā day women were conducting the worship at the bathing *ghat*. There stood a tree upon which sat two birds, a kite and a vulture. They watched the proceedings of the women below and overheard an account of the Oshā. They resolved to observe the Oshā themselves, but while the kite was sincere in her belief and intention, the vulture was

sceptic about the efficacy of the observance and wished to enact a mock show. They bathed in the tank, but while the kite sat on the tree and observed absolute fasting and saw the worship by the women, with devotion, the vulture entered into a hollow of the tree, thought contemptuously of the worship, and stealthily took flesh. The kite passed the whole night wide awake, while the vulture pretending to observe the *Oshā* in all its rigidity and rigour, slept the night away. As a punishment for this deceptive conduct, the only male offspring of the vulture died a premature death. In course of time, both the birds died. As a consequence of their observing the *Oshā*, they were re-born as two sisters in a high family. The vulture, born as the elder sister, was married to a minister, but as her *Oshā* was not unbroken, she became a "*madhichhī*," i.e., one who gives birth to short-lived or still-born children. The kite re-born as the younger sister, married a *Sadhaba*, or trader, and was blessed with twenty-one sons and vast wealth, and lived a very happy life.

The minister's wife brooding over her misfortune in getting only so many short-lived sons was very unhappy and was passing her days in constant sorrow. The younger sister, the *Sadhaba*'s wife, sympathising with her sister, one day asked her young ever-cheerful sons to go to the minister's house and see their aunt so that she might forget her grief and get some consolation at seeing them. They did as they were told,

but when they presented themselves before their aunt, she took the matter amiss and enviously thought that her sister was mocking at her sad fate by an exhibition of her sons. So she maliciously resolved to kill them, and enticing them to a secret room, cut off their heads, one by one. But god Dutivāhana of whom their mother was a faithful devotee miraculously spirited them away, and those whom the aunt beheaded were not the actual human boys but their illusory images. The minister's wife arranged the heads in a basket, and covering it up with a fine wrapper asked her maid-servants to convey it to her sister and present it as her gift. The servants did as they were ordered, but simultaneously with their arrival at the Sādhavānī's house, her real sons arrived and made an uproar for food. The mother pointed them to the basket of presents and when they removed the wrapper they found so many coconuts to which they did full and hearty justice. [When the kathā story reaches this stage, the females observing the Oshā are asked to touch coconuts.] Similar incidents viz,—the Sādhavānī sending her sons to their aunt's house in good faith, the aunt spitefully killing them and sending their limbs cut into pieces and cleanly covered in baskets, to her sister as presents, the god Dutivāhana miraculously saving the boys and substituting illusory images, transformation of human limbs in the basket into sweet coconuts the simultaneous arrival of the baskets and the boys at Sādhavānī's house and the boys hungrily partaking of them,—recurred six times. On

the second occasion the limbs were transformed into pieces of sugarcane and ginger; on the third, into sprouts of *muga chaṇā* and *solā*; (gram) on the fourth, into maize and sweet potatoes; on the fifth, into *karamangā*, *kerandā* plums, and lotus-seeds, and on the sixth occasion the limbs were transformed into betel-leaves, *jahni*, and pumpkins. [The ladies observing the Oshā are asked to touch the respective things on each occasion when the recitation of the *kathā* story reaches that particular stage.] At last the minister came to know of the cruel and envious deeds of his wife and sharply rebuked her. Both the husband and wife then went to the Sādhava's wife and served her in various ways. She was pleased with their service and instructed her elder sister to observe the Dutia Oshā, rigidly. The latter did so, and thereby recollected the occurrences of her past life. During her worship the god Dutī-vāhana was pleased with her, and appearing before her as a seven-year-old boy, with his bow and arrows made of *jui* creeper, shot an arrow which struck her body and thereby cured her of her malady of giving birth to either short-lived or still-born sons. She was blessed with many sons and vast wealth and observed the Oshā as long as she lived. [At this stage of the *kathā*-story, the ladies are to hold in their hands *jui* branches as if to shoot arrows.] The *kathā* story after giving final instructions regarding the mode of worship comes to an end.

From the vocabulary of the *kathā*-story it appears to have first originated in the Ōṛissān Gaṛhjāts (Feudatory States), and to have subsequently spread to the coastal districts.

(To be continued.)

MISCELLANEOUS CONTRIBUTIONS.

I. CAUCASIC PEOPLES BETWEEN INDIA AND THE PACIFIC.

At the present day we find small groups,—mere islands of peoples,—bearing Indo-European features, isolated in the wild regions that extend from the north-eastern frontier of India to the Pacific. Very often, it seems, the Indo-Europeans have got merged in the mass of the Mongoloid population; nevertheless individuals and groups show unmistakably the admixture with a considerable Indo-European element. Thus, beginning with the eastern frontier of Assam, among the Naga tribes, Dr. Hutton notes of the Angamis that “the flattened nose and the slightly oblique eyes of a decidedly Mongolian type may be seen side by side with a straightness of eye and nose that might be purely Aryan. The colour of the eye is always brown; the lips are sometime fine, sometimes very thick, and the hair, which in childhood is often of a reddish colour, though it turns black later, is generally straight, and sometimes wavy, very rarely, and never woolly like a Negro’s. In the higher and colder villages the skins of both men and women are sometimes exceptionally fair, and a ruddy, almost pink tinge may be noticed on their cheeks”. “His stature is tall for a hillman, 5' 9" and often 6 feet. The young bucks are usually very fine, light, beautifully built and powerful”. Of the Sema

Naga who are more Mongoloid in their features, he observes, "In the higher villages on each side of the Tizu the men are comparatively tall and often of very fine physique, particularly among the chiefs and their families. Many have quite fair skins, and among the men good features are often to be met with, sometimes very handsome ones."

Further north, beginning with the Singphos just on the Indian frontier, there extend a number of tribes called derisively Ka-khyens by the Burmese, and ethnically connected with the Kuki-Naga group; among these, beside the predominant majority with marked Mongoloid features of the true Singpho, there is found a much finer race with regular Caucasian features, long oval face, pointed chin, and aquiline nose. Anderson speaks of a Ka-khyen belle met with at Bhamo who, "with large lustrous eyes and fair skin, might almost have passed for a European".

The Karens who form about a sixth of the total population of Burma, are short and thick-set with black hair and eyes, but there are some among them with brownish hair and even hazel eyes, so that here also, as observed by Keane, a Caucasian strain may be suspected. Dr. Hutton observes that "the Karens of the Golden Chersonese seem to have a tradition of origin from the Indian coasts of the Bay of Bengal". M. A. Tildesley also discovered, from craniological data, amongst the Burmans, a type which she says, is probably Karen and closer to the Caucasian than the Burman proper.

In the Shan or Tai who occupy the eastern part of the area between the Salween and the Irrawady and the north-west of Burma, and are included by Haddon in the Siamese-Chinese group, it appears that a fusion has been going on for ages between them and the Caucasian aborigines with the result that the Shans are generally marked by a finer physique than either the Siamese or the Chinese. Kreitner of the Szechenyi expedition observes that "the Burmese Shans have nobler heads than the Chinese; the dark eyes are about horizontal, the nose is straight, the whole expression approaches that of the Caucasian race". Dr. Billet compares the Thai to the Aryans.

In Indo-China, the Annamites who are predominant and at present form almost the exclusive element throughout all the lowland and cultivated parts of Tonking, Upper and Lower Cochin-China, and Southern Cambodia, are absolutely Mongoloid with high cheek-bones, small crushed nose, black hair, scant beard and medium height. But amongst the indigenous population of Tonking, Dr. A. Billet has discovered a clear Caucasian element. These aborigines, he says, are quite distinct both from the Chinese and the Annamese and are divided into three groups,—Tho, Nong and Mon. The Tho who are the most numerous, have an average stature of 1670 mm., higher in comparison with that of the Mongoloids, and are lighter in complexion than their neighbours in the south, the Annamites; they possess a brachycephalic cranium, but the face is oval, the nose straight,

and sometimes even slightly aquiline, not depressed at the root, the eyes are horizontal and deep-set in their orbits. The Nongs show a greater admixture with the Chinese, but the original ancient type is manifest in some individuals, specially amongst the women who resemble more closely the Tho; and Dr. Billet assures us that he often met with Nong peasant women with blonde, and sometimes, even quite red hair. The Mons, according to one of their legends, came, says Billet, "from a country far to the west, where their ancestors had had contact with peoples of the White race, thousands of years ago". They are dolichocephalic, with an average stature of 1640., without prominent cheek bones, eyes without the Mongol fold, skin not yellowish but "rather bronzed by the sun"; in fact, the Mon have very little in common with the yellow race. Verneau observes that the Mon present striking affinity with the Aryans, by which he no doubt means Caucasian or Indo-European. This is also confirmed by the anthropological results of the Mission led by M. Pavie in 1895, to delimit the Chinese, British and French frontiers on the Upper Mekong. M. Pavie exhibited at the Société d'Anthropologie of Paris a magnificent collection of photographs of the people of this area from which Verneau distinguished two types—one strongly akin to that of the Dyaks of Borneo or the Battaks of Sumatra, and a second type, with a long face, horizontal eyes, low cheek-bones, prominent nose and thin lips, in fact, a type whose appearance does not permit us to discover any

affinity with the Mongols. They are variously called the Meo, Miao, or Miao-Tze, and on the information furnished about them by Dr. Neis, de Quatrefages had no hesitation in considering them as a White people.

Verneau and Pannetier, on analysing the population of Cambodia, find beside the Negrito, Nesiob and Mongoloid types, a fourth one, which they call the civilising element, derived from India or from the islands; this may be due mainly to the Indian immigration into Cambodia in historic times, but it does not do away with the probability of a remnant of a prehistoric immigration of Indo-Aryan people in this area, as in the other parts of Further India.

Prince Henri d'Orleans made a journey from Tokin through Yunnan, first along the valley of the Mekong, and finally striking west penetrated through the rugged hills and thick forests on the eastern frontier of Assam to Sadiya. Among the numerous Mongoloid peoples through whose territories he travelled he often noticed individuals, and sometimes whole tribes distinguished from their neighbours by characteristic Indo-European features—prominent leptorrhine nose, and straight-set eyeys without obliquity and the epicanthic fold. Thus, among the Houmis in the district just to the north of the Tonkin frontier, he met with individuals with prominent forehead and eyes, that were scarcely at all oblique, and thus clearly distinguishable from both the Chinese and the Annamite. He found individuals with similar

features among the Mopsos further west, and the Kiu-tse reminded him of certain Europeans whom he knew. While in eastern Yunnan, near the small town of Feng-cheu-lin, he observes, "We noticed among the natives yet another tribe, hitherto unmet with, whose characteristics were slight figures, pale complexion, nose and straight prominent, with thick lips and large straight-set eyes". They called themselves Lin-tindijous, but the Chinese called them Yaos, and they were credited with a writing of their own. Their dialect was totally different from any other in the region. All these peculiarities including a difference in dialect, and an independent system of non-Chinese writing were more marked among the Lolos and the Lissous. Of the latter he observes, "The Lissou has a marked aquiline nose and straight-set eyes. ***The Lissous themselves spoke of a country where they had formerly lived, where there are elephants. They must then have come from the south." Dr. A. F. Legendre who was long in the Medical department of the French Colonial Service took some measurements among the Lolos, and as the result of his analysis of the anthropological material he finds the Lolos hypsicephalic, sub-brachycephalic (average C. I. 80. 2), with a leptorrhine nose, and an average stature of about 1700 mm., going up in some cases to 1780 mm. Dr. Hutton also observes that "a definite Caucasian stock appears to be present in the aboriginal population of Indo-China and has doubtless survived as a submerged element in other hill-tribes in south-east Asia".

From the facts noted above, the conclusion is irresistible, as observed by Keane, that "peoples of the Caucasian division had already spread to the utmost confines of south-east Asia in remote prehistoric times, and had in this region even preceded the first waves of Mongolic migration radiating from their cradle-land on the Tibetan plateau." I would suggest that these peoples with Indo-European features whom we find occupying the whole of the region that separates Eastern India from the Pacific, represent waves of migration, through northern India, of *Homo Indo-Europaeus*, of both varieties,—brachymorphous as well as dolichomorphous,—as we find of them in one or rather of the tribes referred to, in very remote prehistoric times, anterior to the evolution of Vedic culture. There Pre-Vedic, and in some cases, Proto-Vedic people spread over the whole of northern India up to its eastern limits, but were not apparently stopped by the hills and forests that obstructed their passage, yet were not insuperable, and they penetrated up to the farthest limit of the continent, and have left these vestiges of their path towards the east, just as they have left today to mark their progress in the south.

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ANTHROPOLOGICAL NOTES AND NEWS.

It is gratifying to learn that provision has recently been made by the University of Calcutta, the only University in India where Anthropology is included in the curricula for Graduate and Post-Graduate Courses, to teach Anthropology in the Intermediate standars. Unfortunately only one college, the Bangabasi College, is reported to have so far affiliation for Intermediate classes in Anthropology. We expect more Colleges will before long be permitted to teach Anthropology, and other Indian Universities will emulate the example of the Calcutta University and wipe out the long-standing reproach of ignoring the claims of this most important branch of study.

Congresses :—

It is reported that the INTERNATIONAL FEDERATION OF EUGENIC ORGANIZATIONS [M. I. XIV. 62] will be held at Scheveningen and the Hague on July, 16-21. Subjects which are reported to be discussed there are as follows : (i) new researches relating to the heredity of mental disorders ; (ii) new methods for the study of normal psychology from the point of view of heredity ; (iii) mutations in plant and animal kingdom ; (iv) mutations in man ; (v) statistics applied to the selection in animal kingdom and man ; (vi) reports on human sterilization.

THE THIRD SESSION OF THE INTERNATIONAL ASSOCIATION FOR THE STUDY OF QUATERNARY will be held in Vienna on 1-5th September, 1936. Prof.

Penck, honorary President, G. Götzinger, President of the Association, Dr. O. Ampferer, Président of the Committee of Organization are its sponsors. The following are some of communications to be discussed there:—Austrian quaternary and the alpine glaciation from its different aspects; stratigraphy, chronology, morphology, climate, prehistory, speleology. Papers communicated by Menghin, kyole Beninger, and Liebus will deal with palaeoliths. For further information our readers are requested to write to Prof. Götzinger and O. Ampferer, presidents, Geologische Bundesanstalt, Rasumofskygasse, Vienna III, or to the General Secretary, Dr. H. Gams, Batanische Institute, Innsbruck-Hötting.

THE SECOND INTERNATIONAL CONGRESS OF PREHISTORIC AND PROTOHISTORIC SCIENCES will take place at Oslo on 3rd 8th August 1936. Special attention will be given to problems that have direct bearing on the prehistory of Norway, such as: (i) works of Finmark, made by Nummedal, in the beds of the stone age 'Palaeolithic character' of the extreme north; (ii) inpestrian graves (naturalistic arctic art) of the neolithic and bronzl age; (iii) stone age or the epochos of migrations and vikings relics of the farm house; (iv) the history of the Germanic style in the decorative art at the time of their great diffusion, that is, V and VI centuries; (v) textiles of Oseberg and tissues and tapestries of the viking epoch; and lastly, researches relating to the domestication of animals and the origin of the runic alphabet.

Mention is also to be made in this connection about a scientific assembly reported in *REVUE ANTHROPOLOGIQUE* to be held in the early part of May at Naney, provided a sufficient number of scientists are prepared to offer their Co-operation. It will be solely restricted to mesolithic Industries about which a comparative discussion "in the light of discoveries made in different countries" is mostly needed. A provisory programme has been drawn up to open discussions which are as follows :—

1. Definition of Mesolithic—its characteristics and scope in the prehistoric chronology.
2. Description of works and observations made in course of works :—
 - (a) lithic and osseous industries.
 - (b) fauna and flora.
 - (c) sepulchral and funerary rites.
 - (d) study of human remains. Racial characteristics,
 - (e) Art.
3. Study and discussions of local facies : Differences, if any, are to be noted between the mesolithic industries of Europe and other countries.
4. Typological study.

Comparative study of different mesolithic industries and their area of dispersion.

5. All Conclusion must be based on the study of intact beds and their stratigraphy. Surface findings are to be regarded as indicator.
6. To name any station or industry after the loca-

lity in which it was discovered will always indicate space and not the time.

Under the aushices of the Italian Society of Anatomy AN INTERNATIONAL CONGRESS OF ANATOMY will be held at Milan on September 3-8, in which, it is reported, delegates from the corresponding societies of Great Britain, Italy, France, Germany, and North America are expected to take part.

The Institute for Investigation of the Brain at Leningred, are to be congratulated for having undertaken the most important task of preparing a microscopical atlas of the cerebral hemispheres of man and the lower animals. The Institute, with their splendid collections of brain comprising 180 cerebral hemispheres of adults, 300 of children, and 470 of lower animals, have it is reported also made an attempt to study the brains of distinguished men in science arts and politics.

The importance of having a 'central clearing house for human heredity' was emphasized by Dr. G. P. Frets, a well-known geneticist of Holland, in the Eleventh session of the International Federation of Eugenic Organizations, held at Zurich in 1934. A BUREAU OF HUMAN HEREDITY has been recently established in London for this purpose with headquarters at 115, Gower Street. A Council comprised mostly of geneticist and medical practitioners has been formed with Prof. Ruggles Gates as Chairman, Sir Laurence Halsey as Treasurer, Dr. Fraser Roberts as Honorary Scientific Secretary, Mrs. C. B. S. Hodson as Hony. General

Secretary. We wish God-speed to this newly-established Bureau.

A new journal entitled '*Genus*' having for its scope "demography, sociology, economics, ethnology, general biology, genetics, eugenics, physical anthropology, social hygiene, has recently appeared under the auspices of the International committee for the study of the problems of the Population and the Italian Society of Genetics and Eugenics.

Friends, admirers and former pupils of Dr. R. R. Marett, Reader in Social Anthropology, University of Oxford, have presented on June 1, 1936, essays now embodied in a book form entitled "*Custom is King*," on the occasion of his seventieth birth day. We are proud in associating ourselves with friends, admirers, and former pupils in offering our sincerest greetings to this eminent ethnologists of Oxford on his seventieth birthday.

It should be noted in this connection that the University of Oxford have created a full Professorship in Social Anthropology in lieu of a Readership whose incumbent was Dr. R. R. Marett. The new professorship, it is stated, be attached to All Souls College and not to the Exeter College as it was the case with the Readership.

Dr. John A. Wilson who is now 36 years old, has been appointed an officiating Director of the Oriental Institute, Chicago, U. S. A. in succession to Prof. James H. Breasted, Dr. Wilson was a pupil and a chief collaborator of the late Prof. Breasted in his Egyptological studies.

Mr. Haran Chandra Chakladar, has been appointed an officiating Head of the Department of Anthropology, Calcutta University, in succession to Dr. Panchanan Mitra deceased. Mr. J. K. Bose, and Dr. P. C. Biswas have been appointed Lecturers also in the same Department.

Sir Arthur Smith Woodward has been elected a member in the section of Zoology of the Royal Swedish Academy of Sciences.

Prof. Franz Boas, Professor of Anthropology in the University of Columbia since 1899 retired on June 30, at the age of seventy-eight years.

It is announced that Prof. H. J. Fleure, a well-known anthropologist of England, has been elected to the much-coveted Fellowship of the Royal Society.

Prof. Peter H. Buck, Bishop Museum, Professor of Anthropology, Yale University, has succeeded Prof. Herbert Gregory as Director of the Museum. It is reported that the Bernhard Hagen Medal of the Frankfort Society for Anthropology, Ethnology, and Primeval History has been awarded to Prof. Leo Frobenius, a celebrated explorer and ethnologist, and Director of the Research Institute for cultural Morphology at Frankfort on Main.

We offer our heartiest felicitations to l' Abbé Breuil, Professor in the collège de France, Paris, on his having been presented with the Flinders Petrie Medal of the University of London. This, we understand, is the only instance in which this medal has been awarded to a foreigner.

It is reported that the Founder's Medal of

the Royal Geographical Society of London has been awarded to Mr. G. W. Murray, Director of Desert Surveys, Egypt, in recognition of his works in the deserts of Sinai and Eastern Egypt and of his studies of the Badawin tribes.

It has been announced that the Eugenics Society of London have recently created a Second Darwin Research Studentship for carrying investigation on racial crossing, a problem that has of late engaged the considerable attention of Geneticists and anthropo-biologists. The value of the Studentship is £250 per annum. The subject on which the work is to be carried on will be declared in October.

We regret to announce the death of:—

1. Prof. Eric von Hornbostel, a well-known authority in the music of primitive men and Musi Cology, died at Cambridge, England, at the age of fifty-eight.
2. Dr. Karl Pearson, Galton Professor of Eugenics and Director of the Biometric Laboratory, University college, London, author of "*Grammar of Science*," (1892); "*Chances of Death and other studies in Evolution*" (1897); "*Ethic of Free Thought*" (1888); "*The Life, Letters and Labours of Francis Galton*," (1914, 1930) and the Editor of "*Biometrika*" died recently.
3. Dr. Panchanan Mitra, Head of the Department of Anthropology, Calcutta University, and author of "*Prehistoric India*," (1927); "*A History of American Anthropology*" (1933); "*Indian Elements in Polynesian Culture*," (in press) etc., died suddenly at his Calcutta residence of Meningitied on 25th July last at the comparatively early age of 45.

J. K. Gan.

INDIAN ETHNOLOGY IN CURRENT PERIODICAL LITERATURE.

In the *Journal of the Royal Anthropological Institute*, July-December, 1935, Mr. A. J. Arkell contributes an illustrated article on "Some Tuareg Ornaments and their Connection with India." These are the *talhakim*, the *tanaghilit*, and the *tadnit* which should (according to the Darfur Tuareg) be properly worn with two *tanaghilit* or silver "Agades Cross", as part of an elaborate necklace. It is suspended from a string of blue glass beads, which space out a number of carnelian axe- or "irregular diamond-" shaped pendants, or their imitations in silver, both indifferently called *shashat* by the Tuareg. This necklace is worn combined with another necklace called *tadnit*, which is composed of a large silver diamond-shaped ornament (also called *tadnit*), silver tubular beads with double waists of a form said to be called "bamboo pattern" in India, and red glass beads. On this necklace are suspended a pair of *tanaghilit*. The various forms of *tanaghilit* are associated by the Darfur Tuareg, with different sections of the tribe. Reference is also made to the remarkable parallel which exists between the ear-chains (*tsagur*) with a boat-shaped pendant (*taazaf*) at the end, which is worn by Kinin women, and certain ornaments from the Garo Hills of Assam. The *taazaf*, it has been ascertained, is made only at Cambay where it is known as *nakhli*, but is not

generally used in India except perhaps by a few backward tribes. It is also significant that besides these axe-shaped pendants made at Cambay, all the beads and pendants used by the Darfur Tuareg in these ornaments are Indian types. The *talhākīm* which are manufactured from carnelian and blood-stone, only at Cambay, are there known as *Chhala*, though of recent years most of the carnelian forms of *talhākīm* have been coming from German and Czechoslovakian factories which import rough stone from India and elsewhere, and by improved processes produce an article of better finish and deeper red colour that has driven out of the market the original manufactures of Cambay. The stress laid on the red colour of the *talhākīm* is undoubtedly connected with blood, and the associated idea of life. The red colour of carnelian has always been responsible for the belief that it possesses the magic property of being good for the blood and so promoting fertility. The *talhākīm*, if a fertility charm evolved at Cambay from the carnelian signet ring by the addition of a small terminal pendant in the shape of a phallic appendage, or in some cases a female pudenda, may have been introduced to the peoples of North Africa through the medium of Arab merchants, who have traded between Egypt and Western India since early times.

In *Man* for April, 1936, under the caption "Primitive Medicine at a Malabar Temple," Mr. A. Aiyappan, writes a short note on the discovery of a sculpture of the Hindu deity S'iva as *Dakshināmurti*, the teacher, and the erection

of a shrine on the spot which has now become a place of pilgrimage. The largest number of offerings made before this sculptured image are for curative purposes. A curious offering that Mr. Aiyappan noticed was a wooden tortoise said to have been made for a case of stomach-ache. He suggests that it may perhaps be based on the belief that the abdominal pain is very often caused by tumours which certain native physicians hold to have a tortoise-like shape.

In *Man* for May, 1936, Rev. Walter Asboe contributes two notes, one on "The Scape-goat in Western Tibet," and another on "Sacrifices in Western Tibet". The first Note describes the ritual connected with the release of a scape-goat to obtain absolution from the moral impurities in the individual or the community for which noxious diseases, failure of crops, etc, are held responsible. The second Note gives two stories of the last human sacrifices in Lahoul and briefly refers to the present method of sacrificing animals by tearing the heart out and offering that organ to the deity. Even when slaughtering animals for food, it is customary in Lahoul to tear the hearts out of them.

In *Man* for September, 1936, Mr. H. R. Palmer writes a note on "Some Tuareg Ornaments", in which he suggests that the probability of the *tamsugh* cross and the allied form of cross called *tadanit* worn by the Tuareg, are symbols of sun- or fire- worship, formerly practised by the *Imagharan* (veiled nobility). "Their basic motif is the

triangle, not the cross as such. The three triangles in the one case, and in the other the two triangles with three pendants are merely suspended by the ring in the one case, and the triangle in the other. The former may very well be connected with *ankh* as a life symbol, whereas the latter seems, from its name, to have been associated by the Imagharan with Adan, that is to say, Arabia or Mesopotamia". Mr. Palmer, though agreeing that the '*talhakim*' or '*talagumt*' ornament in its original form was probably a 'ring', doubts whether it should be regarded as peculiarly Tuareg, in the sense that *tamsugh* and *tadanit* are. "This ornament has a wide sale among the Kanuri and Hausa, and the names for it attributed to Hausa pilgrims, *talhatana* and *talhiatumu*, show that some Hausas regard it as as a form of seal or signet-ring. The connection with Cambay is arresting, for the trade in these articles goes back to most ancient times".

In the *Journal of the Royal Asiatic Society* for April, 1936, Mr. A. G. Shireff, contributes a paper on *Hindī Folk Songs* based on the collection of such songs (*Gram-Git*) by Pandit R.N. Tripathi.

In the *Journal of the Royal Asiatic Society of Bengal*, vol. II., 1936. (issued August 1936) Mr. N. L. Bor contributes an article on *The Daftas and their Oaths*.

In *Science and Culture* for July, 1936, Mr. Sasanka Sekhar Sarker contributes an article on *Anthropology and Growth*, and Dr. Bhupendra Nath Dutta or "*People and Castes of Bengal*". In

the latter article which is continued in the August number of the same journal, Dr. Dutta adduces reasons for thinking that "to suppose Nordic strain only with the Brāhmanas will be misinterpreting history," that "the four *Varnas* are the metaphysical representation of the different professions in which the peoples are engaged". "A modern Indian caste is hereditary and an endogamous organization, with its own rules of conduct. In old days, the notions of purification and taboo coupled with the attitude of the dominant class towards various occupations determined the status of a class. To-day, caste-class is an exclusive and autonomous body. It is a community by itself. Formerly, the State, i.e., the king, could change the status of a caste: now-a-days, economic prosperity and education, combining together, have again set the dynamic force of the Hindu society in motion, and the castes are shifting their positions. Again, the castes bearing the same names everywhere may not have the same anthropological origin.... The history of the development of the Hindu society shows that there has not been any *Sanātan Dhārā* (permanency) in Hindu-polity; rather society has been dynamic".

In the *Quarterly Journal of the Mythic Society* for April, 1936, Mr. S. C. Mitra continues his "Studies in Plant-Myths," and Mr. M. Yamuna-charya writes on "The Myth of War in Heaven and its Significance".

In *Indian Culture* for July, 1936, Mr. K. L. Barua contributes an article on the "Alpines in

Eastern India" in which he recapitulates in brief the present state of our knowledge or authoritative inferences regarding the racial history of India with particular regard to the Alpine element, and supports them by certain epigraphical data.

In the *Indian Historical Quarterly* for June, 1936, Mr. L. V. Ramaswami Aiyar contributes a philological article on "Dravidian 'Eating' and 'Drinking'" with reference to the general Dravidic words for 'food' and 'drink'.

In the *Journal of The United Provinces Historical Society* for April, 1936, Dr. D. N. Majumdar contributes an article on "The Decline of the Primitive Tribes in India", which he concludes as follows:—"Now that the 'Excluded Areas' have been formed, it is desirable that the administrator should seek the co-operation of anthropologists to assist in the building up of a new culture in the tribal areas which will assimilate all that is good outside and preserve all that is best in tribal culture. In the Excluded Areas, if the missionaries are allowed to proceed, the anthropologist must precede them so that the survival value of primitive customs and usages may be found out by the scientist to enable the legislator to legislate and the administrator to govern without discomfort to tribal life."

In the *Annals of Bhandarkar Oriental Research Institute* for January 1936, Mr. H. A. Shah, contributes a long article on "Vedic Gods"; and in the April (1936) number of the same Journal Mr.

B. C. Law contributes a paper on "Countries and Peoples of India" compiled from Epic and Pauranic sources.

In the *New Review* for July, 1934, appears an article headed "Light on Mohenjodaro Riddle" by Rev. H. Heras. In this article, Father Heras puts forward certain considerations based on the Mahenjo-Daro script and what he calls certain "collateral proto-Libyan" scripts (Iberian, Etruscan, Libyan, Minoan, Proto-Egyptian) and what he calls "Derivation scripts" (Sumerian, Proto-Elamite, Proto-Chinese, Sabæan) to support the opinion of the late Prof. R. D. Banerji (the discoverer of the importance of these sites) that Mahenjo-Daro and Harappa "were built by Dravidians and proto-Dravidians".

In the September (1936) number of the *New Review*, Mr. Joseph Mansion contributes a suggestive article on "Civilization: One or Many?" In this article a few considerations are put forward in support of the view that "somewhere, between the Mediterranean Sea and China, it (civilization) came to life and spread from that region to others". And that centre of origin may not improbably have been India.

In the same number of the *New Review*, Mr. Charulal Mukherjea contributes a short paper on "Santhal Folk-Poetry". The songs are not recorded in *Santhali*, but only English translations of a few snatches of songs are given. As with other tribes on a similar level of culture, the Santhal

has songs without number describing the emotions of bride and bridegroom and of their friends at a wedding, and songs expressive of love of beauty in nature, particularly of flowers in the fields and woods and streams, and of sweet-singing little birds on the trees.

In the *Journal of the Bombay University* for January, 1936, Mr. G. K. Sabnis contributes the first part of an interesting article or "The Unconscious through the Ages".

In the *Modern Review* for July 1936, Mr. B. B. Mukerji writing on "Trends of Population in India," points out that "there is a definite tendency working at present throughout the whole of India, for sub-castes to combine on the one one hand and for different castes to do the same on the other—often under a new name in order to improve its social status or to strengthen its political position," and that "the sweep of democracy throughout the world, the desire for reform, the enthusiasm for education, the demand for equality, the passion for Swaraj, the rapid industrial development of the country, the increased facilities of travel in and outside India, the new attitude towards woman, the struggle for political power and the growth of new ideas.—all these have combined to create a new upheaval with a volcanic energy that is giving new values to old things and "that the Harijan problem has now become one of the classic issues of Indian History," and further that "our population is increasing rapidly at the wrong end," the lower strata of

society increasing far more rapidly than the higher classes "who have always made the greatest and richest contributions to our arts, literature, music, science and culture". The need for a determined effort to improve this state of things by improving the Public Health Organization and by other appropriate measures is emphasised.

In *Nature*, for 6th June 1936, appears an article on the "*Origin of Levirate in Assam*" by Mr. J. K. Bose; and in *Nature* for 20th June, 1936, appears an article by Mr. S. S. Sarkar on "*Negrito Racial Strain in India*".

In *Anthropos* for January-April, 1936, appears an article by Mr. Biren Bonnerjea on "*Contributions to Garo Linguistics*,"

NOTICES OF BOOKS.

Archaeology.

Guide to the Collections in the Horniman Museum and Library. Forest Hill, London, S. E. 23. (Fourth Edition, 1936, London County Council). pp. 128 Price 3d.

A general Guide-book like the present for the use of lay visitors is needed for every Museum worth the name. It does not describe every exhibit in the Museum, which is done by 'Handbooks' (of which sixteen have been published) in respect of different cases. This Guide-book gives a summary of the chief sections and series of exhibits in the Ethnological Department, and attempts in brief to give the lay visitor a rough idea of the general line of advance in arts and artefacts from the earliest times to the present.

The Tresse Iron-Age Megalithic Monument: Its Quadruple Sculptured Breasts and their Relation to the Mother-Goddess Cosmic Cult. By V. C. C. Collum. Oxford University Press, London: Humphrey Milford, 1935, pp. 122, Price 10s. 6d.

This is a report of the excavation of a hitherto unexcavated megalithic *allée couverte* of the Gallo-Roman period with "realistic sculptures in relief of two double pairs of human breast containing a crouched burial *in situ*, fragments of an one-edged short iron sword, steatite beads, and more than 60 pots of American-'dolmenic' and American Gaulish styles of ceramic antiquities" at Tressé,

St. Malo, in the department of Ille-et-Vilaine in 1931, undertaken by the author for Sir Robert Mond. Special interest attaches to Miss Collum's comparative study of the cult responsible for the symbolism of the two pairs of human breasts sculptured in relief on two of the upright stones of the *allée couverte*. The main conclusions to which the author's comparative study leads her is that the goddess was the Great Female principle (comprehending a Male Principle), both in its manifesting aspect as Woman the Lover-Bride and as the all-nourishing Mother, whose cult was widespread in Asia Minor, Syria, Central Asia and N. W. India, and Mesopotamia; and that the peculiar symbolism of double pairs of human breasts was probably suggested by knowledge of cult statues of Artemis Ephesia of the Græco-Roman period and of the esoteric Tantric and ancient Kabbalist doctrine of the two-fold Mother-Bride as potential and active Creatrix and Reabsorber of all life at death. The author ranges from the farthest east to the farthest west in the Old World in her search for this cosmic cult. And she has done her self-imposed task with consummate ability and scholarship. Cults of existing primitive peoples do not, however, appear to have been within the ambit of her comparative study. Should her future researches extend in that direction, materials, though on a very much humbler scale, may not be lacking. Thus, to cite one instance, the Dravidian-speaking Orāṇīs of Choṭā-Nāgpur still exhibit in some of their Bachelors' dormitories

one or more planks of wood with a pair of female human breasts rudely carved in relief and and resting over the central beam supporting the roof. (S. C. Roy, *Oraon Religion and Customs*, p. 86). The same tribe also make rude carvings on the central post of some Bachelors' Dormitories to represent the figure of female, a slit representing the female organ of generation (*Ibid*, Illustration, 18); and erect pyramid-shaped mounds of earth or of stone called "Mandar sâbas to represent the male organ of generation with which magico-religious ceremonies are connected (*Ibid*, pp. 85-86). Miss Collum's researches, however, cover a very wide field, and are eminently successful. The volume must prove of absorbing interest to the student of Archaeology as well as of Comparative Religion.

The Re-Excavation of Dehus Chambered Mound at Paradis, Vale, Guernsey, By V. C. C. Collum. (Society Guernesiaise, Guernsey. 1935). pp. 189. Price 2s. 6d.

This is a companion volume to the work just noticed. The volume, two is brimful of interest to the archæologist as well as to the student of Comparative Religion. Among the important results of the re-excavation of the Déhus monument and re-examination of the finds from the earlier excavations, the is author's finding that the date of the erections of the monument falls within the Gaulish

period. This excavation thus confirms the results of the author's previous excavation of the Iron Age *allée couverte* at Tressé in North Brittany, viz, that they really belong to a period lying between 300 B. C. and 300 A.D. The author finds in the sculptured male figure on the under-side of the second capstone roofing of the main chamber the key to the religions (cosmic) cult responsible for the erection of the grotto tombs. It is unique to find in this position in a megalithic tomb male figure. He recognises it as the Male Principle in its function of the 'word' in the Ganlic creative and plutonic Deity. Just as the Female Principle necessarily had the two-fold aspect of Progenitor and 'Word,' and these aspects, in order they might be 'understood of "the people", had to be figured separately. This identification leads the author to his late dating of these megalithic monuments. The author suggests that the Déhus 'gardien' was the work neither of a skilled artist nor of a primitive savage but that it was masterfully executed by a man of some education who knew precisely the effect he sought to achieve and succeeded in achieving within the straitened limits of the refractory material. The idea behind megalithic monuments is, according to Miss Collum, the reproduction of a natural grotto representing the entrance to the under-world,—back into the womb of the Earth from which his being issued.

Considerations of space forbid us to enter into the mass of data ably set forth by the learned author in support of his hypothesis that the

figure graven on the capstone of the Déhus chamber represents the Celtic 'Hermes,' and that "the oldest theosophy of the civilised world in Mesopotamia, Assyria, Babylonia, Persia, Asia Minor, Syria, Arabia and Egypt centred in a cosmic drama in which the chief parts were played by a bi-sexed Creative Principle and Messenger and Guide in his relation to the human race," who is best known as Tammuz (Dā-ûz) in the one relation and as Hermes in the other.

Anthropology and Ethnology.

An Introduction to Anthropology. By R. K. Mondal and M. N. Basu. (Book Company, Calcutta, 1936). pp 148.

As an elementary outline of the salient facts of both Physical and Cultural Anthropology, presented in simple language and in a small, perhaps too small, compass this little book will prove useful to beginners in the study of the science. The absence of an index is a desideratum. It is expected that the book will be enlarged and provided with an Index in the next edition which, we hope, will not be long in coming.

The Migration of Culture. By Rendel Harris. Oxford, Basil Blackwell, 1936). pp. 60. Price 5s. net.

The book contains two essays, entitled respectively "Who discovered South America" and "Egyptians and Basques." The author adduces philological evidence from place-names in South and

Central America in support of his theory of the joint colonisation of those countries by Egyptianised Celts and the Basques. The author adduces reasons to suppose that the route of migration of the Basques as well as the Egyptians was across the Atlantic into the Bay of Mexico and then coast-wise round the northern shores of the Gulf of Mexico.

The Mysore Tribes and Castes, Vol. I. By L. K. Ananthakrishna Iyer. (Mysore University 1935). pp. xxii+502. Price, Rs. 15.

This volume completes the Ethnographic Survey of Mysore which was started in 1903 by the late H. V. Nanjundayya and continued and concluded by Dr. Iyer. There are two Introductions one by Dr. R. R. Marett, and the other by M. Sylvain Levi. Of the sixteen chapters of the book, the first chapter (Racial History) is from the pen of Baron Von Eickstedt, and the second chapter (Cultural Geography of Mysore) is by Mr. F. J. Richards. The Introductions and the first two chapters enhance the value of the work, the remaining chapters by Dr. Iyer himself being general accounts on Caste, Population, Occupation, Marriage and Family, Totemism, Religion, Dress and Ornaments, Food, Games, Dancing, and the Village Community in Mysore. These 'ethnographical surveys,' though they do not and cannot make intensive studies of the different 'tribes and castes' and, as being in part at least compiled from notes supplied

by lay correspondents, cannot always be accurate, are, however, indispensable for a comprehensive preliminary study of the People of India as a whole. And it is to be expected that the authorities of other States and Administrations in India will take suitable steps to bring out similar works on the 'Castes and Tribes' of their respective States and Administrations.

Race and Culture, (Royal Anthropological Institute and the Institute of Sociology, 1936). pp. 24. Price 1s.

This is an *ad interim* report of a Joint Committee set up under the auspices of the Royal Anthropological Institute and the Institute of Sociology to consider the significance of the racial factor in cultural development. It embodies a set of suggested definitions of 'Race', 'Culture', and 'Population,' produced as the result of joint discussion, followed by comments of individual members of the Committee. The need for clarification of the term 'race' can never be over-emphasised. The adoption of the term "Ethnogenics," suggested in this report for the study of human history in terms of changing race, population and culture, (interacting and evolving), might perhaps be accepted as appropriate unless a simpler name can be found. All students of Man will eagerly look forward to the final report of the Committee.

Fear of the Dead in Primitive Religion. By Sir James G. Frazer. Vol. III. (Macmillan, 1936) pp. X + 323.

This volume completes the eminent author's classical study of the "Fear of the Dead in Primitive Religion". It deals with precautions taken by man in different parts of the earth against the return of ghosts to afflict their survivors, and with the various guiles and artifices adopted by men for deceiving the ghosts, and with the different kinds of dangerous ghosts feared by primitive man. No praise can be too high for the thorough and masterly treatment of the subject in this and its companion volumes.

The Law and the Prophets. By Harold Peake and H. J. Fleure. (Clarendon Press, 1936). pp. viii + 188. Price 5s net.

This is the concluding volume of the well-known "*Corridors of Time*" series which seeks to trace the march of human culture from the dawn of human life to the periods of the rise and dissemination of abstract of abstract ideas and written thought. It contains twelve chapters, headed respectively,—1. The Revival of the Northern Steppe; 2. An Attempted Recovery in the Riverine Lands of the Near East; 3. Maritime Traders in the Great Sea; 4. Israel; 5. Law and Philosophers in Greece; 6. The King of Kings; 7. India of the Philosophers; 8. Chinese Songs; 9. The Birth of Rome; 10. Iron in Central Europe; 11. The Iron Age in the West; 12. Philosophers and Barbarians. As for

Indian Civilization, the authors support the view, now generally accepted since the discovery of the Indus Valley civilisation of chalcolithic times, and recently emphasised by Dr. J. H. Hutton in *The Census of India*, 1931, that the later civilization of India has a large heritage from the early 'Mediterranean' inhabitants. Chanda's theory that Vishnu, Shiva, and S'akti are gods of non-Āryan origin is cited with approval. As a critical account of "human evolution from the beginning until the iron sword heralded the coming of classical times in the Mediterranean," the *Corridors of Time* series stands unrivalled. We eagerly look forward to the promised supplementary volume in which the processes of racial and social evolution of man will be reviewed in general terms.

The Dream in Primitive Cultures:—By J. S. Lincoln. With Introduction by Prof. C. G. Seligman, (Crescent Press, London, 1936) Pp. XIII+359. Price 18s. *net*.

This is a very important contribution to the study of man. Dr. Lincoln has collected and examined a large amount of material—larger than any other previous writer's regarding the significance of dreams as disguised manifestations of repressed desires. The American Indian data that he has collected would appear to justify his inference that a large part of primitive culture is the result of psychological and cultural processes behind the

dream. As Prof. Seligman points out in his 'Introduction', "Dr Lincoln's insistence that the mind assimilates new symbols to represent old primary ideas through the associative principles of similarity and identity (using to a considerable extent the mechanism of condensation) because the unconscious tends to see similarities and never differences, is of great practical interest." Now with the increasing appreciation by students of man of the need for the application of psychological knowledge to the elucidation of anthropological facts and particularly the significance of myth, ritual, and dreams, a book like the present will form a welcome addition to the anthropologist's library.

History.

The Ancient World. A Beginning By T. R. Glover. (Cambridge University Press, 1935). pp. X+378. Price 7s. 6d.

As an outcome of the author's long experience as a teacher of Ancient History, he has produced a most interesting, instructive and fascinating elementary outline of the history of the ancient world for beginners in the study. His treatment of ancient history, though rather novel, appears to be best calculated to attract and interest the beginner in its study, and give him a real insight into history. The learned author, while trying to keep a firm hold upon the thread of the story of the march of human civilisation, has omitted battles, dates, and constitutions where they seemed

of minor significance in the march of events. From matters economic he has moved to the thoughts of men, for, as he points out, "if History is conditioned by the configuration of the land, the need of food, of water and air and land, imagination shapes it and emotion again and again is the driving force in great movements. He has sought to make his reader visualise what things most stirred imagination and emotion, and then by imagination to enter into them, till, as emotion is stirred, the reader begins to understand how men felt of old, and how their life was shaped by their feeling. The author tells his narrative in such a way as to bring out the truth that "Ideas are the real forces in human history", that "law emerges more and more as of prime importance,—law based on intelligible principles, law corresponding closely with human nature, law growing more and more, like Justice", and that, with the progress of real civilisation, "inner sanctions and inner inhibitions, are substituted for authority without." The only fault that we in India would find with the book is that the ancient history of India is practically left out of account, although it would be too late in the day to ignore India's part in ancient history and ancient India's contribution to the history of civilisation.

The Ancient History of India. By
Aryasomayajula Somayajulu. (Vizagapatam, 1935).
pp. XIX+235 Price Rs. 1/8 as.

This book purports to give the history of India from 7864 B. C. to 646 A. D. from data given in the Purāṇas. The author contends that the southern slopes of the Himalayas and the Gangetic Plains may be taken as the original home of the Aryans. By a new method of calculating dates in Indian History the author makes Samudragupta a contemporary of Seleukas Nikator, places Buddha several centuries before Mahāvīra, disputes the identity of Chandra Gupta with Sandracottus of the Greek historians, and so forth, and fixes the date of Manu as 7864 B. C. Though the author's industry and zeal is commendable, it cannot be said that the evidence set forth in this book is adequate to convince scholars of the validity of most of his conclusions.

Folk-Lore.

British Calendar Customs, England. Vol 2. *Movable Festivals*. By A. R. Wright. Edited by Dr. T. E. Lones with a Preface by Prof. S. H. Hooke (Folk-Lore Society, London, 1936). pp. xv+212. Price 12s. 6d.

This is a highly interesting and instructive collection of first-hand records of celebrations of surviving popular Calendar Customs of England. In this volume only moveable-date festival customs are dealt with. Future volumes of this series, also under the editorship of Dr. Lones, will, we are assured in the Preface, deal with the

English fixed festivals throughout the calendar year, and a further volume will deal with Scotch folklore. As Prof. Hooke observes in his Preface, "It is a witness to the wisdom and sound commonsense of the Church in England that so many of these customs, which were ancient long before Christianity was born, have been enshrined in the calendar of the Church. But many of the customs themselves tell of a feeling towards nature and her mysterious powers that is very different from the Christian Church. The old seasonal customs bear witness to man's feeling that in order to maintain a precarious footing in a hostile universe he must discover some means of controlling nature, of compelling her to his will." In this valuable book we find records not only of the transformations which certain pre-Christian festivals have undergone under the ægis of the Christian Church but also of certain interesting folk-festivals that have disappeared under new conditions. The volume is a valuable contribution to existing Folk-lore literature.

Religion.

Srimad Bhagavad Gita Rahasya or the Science of Karma Yoga. Vol I. By Bal Gangadhar Tilak. Translated by Bhalchandra Sitaram Suthankar. (Poona 1935). pp. lxxx+618-Price, Rs 6.

The translator and publishers of this book have rendered an invaluable service to students of Hindu Religion and Philosophy as well as of Com-

parative Religion, by translating from the original Mahārāṭṭi and publishing in its present form the illuminating interpretation of this sacred book of the Hindus by the late Lokamānya Bal Gangadhar Tilak, who brought to bear upon its examination and interpretation not only the critical acumen of a master mind but the penetrating insight of a philosopher and a *Sādhak* who put into practice the precepts of this Bible of the Hindus and realised its truths in his own life.

Though some scholars may differ on some minor point or other with the view of the distinguished author, there can be no difference on essential points. And all will admire the vast erudition, philosophic acumen, and spiritual insight of the late lamented Lokamānya. We eagerly look forward to the perusal of the second volume of this magnificent work.

Mahommed, the Man and His Faith. By Tor Andrae, Translated by Theophil Menzel. (Allen Unwin. 1936). pp. 276. Price 8s. 6d. *net*.

This is a translation from the original German of Tor Andrae's "*Mohammed, Sein Leben und Sein Glaube*", of which Italian and Spanish translations have also appeared. The book is the result of considerable research and wide reading of Islamic scriptures, and of sympathetic insight into the true spirit of the life of the Arabian pro-

phet and his creed. As for the cheap remark sometimes made that Mohammed was lacking in originality, the author pertinently observes, "A new form of religious life, that of Islam, is not merely a body of doctrine or a system of ritual. It is, when profoundly regarded, a form of spiritual energy, a living seed. It develops its own life, and attracts other spiritual life to itself, according to a law whose significance and purpose is completely revealed only after an extended development. There is originality enough in Mohammed's achievement in catching up into a vital and adaptable personal synthesis the spiritual potentialities of his age....He is the first representative of a new and independent religious type. Even to-day, after a period of development of thirteen centuries, one may clearly discern in genuine Islamic piety the uniqueness which is ultimately derived from its founder's personal experience of God." This book is a valuable contribution to the study of Mahommed and his message.

Miscellaneous Publications.

Canada and the British Army (1846-1871). A study in the Practice of Responsible Government. By C. P. Stacey. (Longmans, 1936). pp. xiii+287. Price 10s. 6d.

The question of military relations between the colonies and the mother country is a thorny one. In this volume the author sets forth in outline, from

original authoritative documents, the salient features of the problem of Canadian military responsibility as it developed after the grant of responsible government down to the time when Great Britain cast upon the new Dominion the whole burden of its local defence in times of peace. The final abolition of the garrisons, it is pointed out, while marking a definite step forward in the rise of the Canadian nation, at the same time contributed substantially to the revival of imperial enthusiasm in England.

On Being a Mother. By Stella Churchill.
(Gollancz. 1936) pp. 285.

This is an illuminating work on the responsibilities and dangers of child-bearing, child-birth, and child-rearing. In the chapters which deal with child-bearing and child-birth, the medical experience of Dr. Churchill enables her to offer wise and valuable guidance. In these chapters as well as in those which deal with practical motherhood, the training and the feeding of the child, the education of the boy and girl, the choice of the school, the method of imparting to the child a knowledge of sex, mating, marriage, family limitation and the role of motherhood in life, Dr. Churchill, as Dr. James Young observes in the Foreward, "succeeds in a high measure in focussing for our consideration the views of one who, both as doctor and as mother, has been brought into

intimate contact with, and who has thought deeply on, the many and often perplexing questions that assail the intelligent mother". As Dr. young remarks, this is "altogether a sincere, a sane, and a wise book," and we might add, "much above the average book of its kind."

Loughborough College. (Leicestershire). Calendar (Session 1934-35). pp. 262. Price 3s. 6d. *net*.

In this profusely illustrated Calendar of Loughborough College, very full information is given of the administration, admission of students, residential and other accommodation, College athletic grounds, College colours, College scholarship, college staff, college terms, syllabuses of studies, College reputation, degrees and diplomas, college libraries and every other important information connected with the College. It is greatly to be desired that the principal colleges of India might arrange to publish Calendars of their own like this.

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I. VEDIC FUNERAL CUSTOMS AND INDUS VALLEY CULTURE.

By

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(i) **Introduction.**

Sir John Marshall, the author of "*Mahenjodaro and Indus Valley Civilization*" has informed the scientific world about the existence of what he calls a pre-Āryan civilization in the Valley of the Indus. According to him the Vedic Āryans were later comers in the same region where, in the chalcolithic period, other races of men were living.

Regarding the connection between the Indus Valley Civilization and that of the Vedic Āryans, the same author speaking about the remains that have been discovered at Mahenjodaro and Harappa says, "They exhibit the Indus peoples of the fourth and third millennium B.C. in possession of a highly developed culture in which no vestige of the Indo-Āryan influence is to be found."¹

¹ Sir John Marshall, "*Mahenjodaro and Indus Valley Civilization*," Vol. I.

Again, in describing the skeletal remains that have been found at Harappa, Marshall says,—“The same remark applies also to the skulls from Harappa; one is from one of the jar-burials which are posterior to the Indus Valley period as represented at Mahenjodaro. The two former are of adult male and female, and are said to be unmistakeably brachycephalic with comparatively high-pitched nose....The other skull is mesati-cephalic. It is said to be quite distinct in type from any of the other skulls (whether long-headed or broad-headed) found at Mahenjodaro and Harappa and is regarded by Sewell and Guha as pointing to the presence of a different race at the latter site. This view fits in with what the strange mode of jar-burial at Harappa and the peculiar decoration of the jars themselves would naturally lead us to infer, *viz.*, that after the eclipse of the Indus civilization some new race of people must have established itself here”.

From this statement it is evinced that in the latter period of Harappa a people with the custom of jar-burials were living there *i.e.* a new race of people with jar-burial custom appeared at Harappa after the period of Indus Valley Civilization as represented at Mahenjodaro.²

But we need not be surprised at the discovery of the custom of jar-burial, as the jar-burial or urn-burial is also to be found elsewhere in the

² *Ibid.*, *Nop. cit.*

world.³ It is said that it was the custom in the country of the Incas of Peru; in South America, the region marked by the ethnologist Max Schmidt as the "Old Columbian Cultural Circle," it was the fashion to bury the dead in earthen jars.⁴ Again, cinerary urns of the Lausitz type extended from Bohemia to the Vistula and beyond to the land of the Slavs.⁵ The urn-burial known as pottery-coffins were in use with the prehistoric Minoans.⁶ Further, isolated cases of such burials have been reported from neolithic deposits at Gaza in Palestine,⁷ and about 2000 B.C. from Surghul in Babylonia in a "Fire-necropolis".⁸ So far as regards the outside world. In this connection it must be mentioned here that all the cremations discovered in central Europe are locally classed as neolithic or chalcolithic and dated between 2400 and 1800 B.C.⁹

Coming to India, in looking into the records of the Vedic people themselves, we find the same custom to have been in vogue in the Vedic and post-Vedic ages. It is said that different customs of disposing of the dead had been in vogue in the Indo-Āryan period of Indian history. Amongst

³ The present writer saw in 1914, the urn-burial of a child being disinterred during the excavation of an ancient site in Athens.

⁴ Max Schmidt—"Volkerkunde" P. 307.

⁵ E. de Michelis—"L'origine degli Indo-Europei" cap. IX.

⁶ Burroughs—"Discoveries in Crete" P. 168.

⁷ MacAlister "Excavations at Gezer".

⁸ "Orientalische Literaturzeitung"

⁹ V. G. Childe—"The Aryans". P. 146,

them we find that in the Rig-Veda the custom of complete burial was in vogue (X. 18). Then, in the Brāhmaṇa period of the Vedic age, the same custom was in practice. Regarding the building of the tomb the Satapatha-Brāhmaṇa¹⁰ says :—"But let him rather make it just of man's size,—he thus leaves no room for another. (13. 8. 1. 9.). Then, the text says, "Now some bank up the sepulchral mound after covering up (the site). He then encloses it by means of enclosing stones (13. 8. 2. 12). Further, the text says,¹¹ "Let him not make it (the sepulchral mound) too large, lest he make the (deceased's) sin large. For a Kshatriya he may make it as high as a man with stretched arms, for a Brāhmaṇa reaching up to the mouth, for a woman up to the hips, for a Vaishya up to the thighs, for a S'udra up to the knee." (13. 8. 3. 11).

Now, the question comes,—what used to be deposited in these sepulchres—the ashes or the dead bodies? As the text speaks of the sepulchre according to the size of a man, and the height of the same mound according to the Varna of the deceased, it seems that dead bodies were deposited in these tombs.

Again, in the period closing the Vedic age

¹⁰ "*Satapatha-Brahmana*"—Translated by Eggeling in *S. B. R.* Series, p. 428.

¹¹ *Ibid.* P. 435.

Lately it has been recognized by historians like Fick and Vincent Smith that *varna* is "class" and not caste.

when the Grihya-Sutras were written, we find the custom of Urn-burial mentioned with details in the *Asvālayana-Grihya-Sutras*.¹² The 'Grihya-Sutra' deals with the rules of the household ceremonies of the Indo-Āryans of the time. These texts give rules of conduct about the household ceremonies of the Vedic people; hence they are the witnesses of the Vedic family ceremonies as the 'Brāhmaṇas' are of the religious ceremonies. The *Asvālayana Grihya-Sutra* says, "If he dies, one should have a piece of ground dug up to the south-east or to the south-west (4. 1. 6)...[The piece of ground dug up should be] of a length of a man with up-raised arms, (4. 1. 9) of the breadth of one Vyama (fathom (14. 1. 10), of the depth of one Vitasti (span) (4. 1. 11). The cemetery should be free on all sides (4. 1. 12). Then the text says, "He gives order to light the fires together" (4. 4. 1). After it, "The gathering [of the bones is performed] after the tenth [tithi from the death] (4. 5. 1.)...A man into a male Urn without special marks, a woman into a female one without special marks. (4. 5. 2)...
"With the thumb and the fourth fingers they should put each single bone [into the Urn] without making a noise, the feet first, the head last (4. 5. 5-6). Having well gathered them and purified them with a winnowing basket, they should put (the urn) into a pit.. with the following [verse]. He should throw earth [into the pit]. Having covered [the Urn] with a lid with (the verse)...they should go away without looking back,

¹² "*Asvālayana-Grihya-Sutra*" translated by Oldenberg in *S. B. E*
PP. 236-246,

should bathe in water, and perform a S'raddha for the deceased (4. 5. 7-10)".

Thus in the Grihya-Sutra we get a minute description of the mode of urn-burial. In it we find clearly mentioned that the dead body should be burned first and then the bones be gathered in an urn and deposited in a pit. The S'atapatha Brāhmaṇa, which was older than the Grihya-Sutra, does not mention any thing about the gathering of bones. Hence, it can be presumed that it speaks of dead bodies to be interred in the sepulchres. An important fact that comes out of this description is, that the tomb described in the Brāhmaṇa text would be as long as the size of a man with the height of the mound varying according to the Varṇa i.e., according to the class of the deceased. Thus it is a long and close-fitting pit, and is not dissimilar with the size of a modern grave. But in the case of the pit described in the Grihya-Sutra the length of the pit would be the "length of a man with up-raised arms, with the breadth of six feet and with the depth of a span" [of the deceased presumably?] Thus, the sepulchral pit would be more commodious than the one described in the Brāhmaṇa text, and it would be roomy enough to hold a big urn.

Turning back from this description of the modes of disposal of the dead bodies of the Vedic Indians, we find that the reporter of the Indus Valley Civilization speaks of the jar-burials disinterred at Harappa. It is said that there are big jars containing the skeletal bones inside. The jars did not contain unburnt dead bodies or

mummies of some sort. They are simply the remains of the burnt skeletons. Hence, a pertinent question can be asked here, were these jars containing the bones the same as described in the Grihya-Sutra? The location of the discovered site lends further proof of such a possibility. Harappa is situated in the Punjab which has been the home-land of the Vedic Āryans. Hence a new race of people suggested by Sir John Marshall may have been the Vedic Āryans themselves.

(ii) Anthropological Enquiry of Indus Valley People Past and Present

This leads us to the anthropological side of the problem. It seems that there is an underlying objection to the identification of Vedic Āryans with any of the biotypes supposed to have been identified in remains of the Indus Valley Civilization.¹ Perhaps, it lies in the fact that no skull of dolichocephal-leptorrhine, tall-statured and blond variety of men has been discovered in these remains. But it is a big supposition, and it leads us to the never-ending quarrel about the racial characteristics of the original and undivided Indo-Europeans. Various schools of anthropology have their own opinions regarding it. It is only some writers who are ridiculed as "Pan-Germanists" who advance the hypothesis that the original Indo-Europeans i. e. the original Indo-European-speaking people were dolichocephalic-leptorrhine blonds, evolved out of the *milieu* of North Europe. To them the original Germans were the original

Indo-Europeans¹³. This point of view has been nicknamed as "Germanism" by the anthropologists of other schools.¹⁴

The archaeologists have long ago discovered that both dolichocephalic and brachycephalic skulls are to be found in the neolithic period of European history. Again in the Azilian epoch which links up palaeolithic and neolithic times, brachycephalic skulls have been discovered at Ofnet¹⁵ in Germany along with long skulls. Hence to speak of the old Germans or the Teutons as the possessors of the dolichocephalic form of heads only, is a misnomer. Moreover, the Germanic-speaking peoples possess both kinds of the abovementioned head-forms as has been proved by craniometric examinations and by somatic measurements on the living and on the dead.¹⁶ The matter was made further ridiculous when the Neanderthal skull of Europe was identified as the Aryan skull by Penka¹⁷ as it was the oldest skull found in Europe. Hence it was Teutonic and therefore Aryan; because, according to the school of "Germanism," the Teutons were the oldest inhabitants of North Europe. But philological enquiries have elicited the facts that the German language contains at least over 30% of pre-German and foreign words and a shifting of the cons-

¹³ Vide "*Encyclopaedia Britannica*" vol. II 1929 pp. 263-264.

¹⁴ G. Sergi, "*The Mediterranean Race*" p 8. He says, "I mean by 'Germanism' the theory which attempts to prove that the Germans are the primitive Aryans."

¹⁵ V. G. Childe, "*The Aryans*" pp. 163-164.

¹⁶ Sir Arthur Keith, "*The Antiquity of Man*", vol. I. p. 110.

¹⁷ Sergi on cit pp. 215-220.

onants have taken place¹⁸ on this basis. There is a school of Philologists who point out that the Germans were Indo-Europeanised by an invasion from outside. Moreover, the oldest cultural remains discovered at Hallstat contain mixed racial elements, viz., Alpine and Mediterranean¹⁹. All these make the theses of the Germanic school shaky.

The Post-war anthropologists of this school have realized the untenability of this theory which has been re-named recently as "Nordicism". Childe says that the "Nordics" contained both dolichocephalic and brachycephalic peoples (pp. 183-188). Dixon speaking about the Nordics says, "these blond dolichocephalic people were not a pure race, and wherever we find them show very clearly on analysis their composite origin" (pp 33-34). But Nordicism as preached now-a-days by Pan-Germanists have become the shibboleth of some National-chauvinists of the Germanic-speaking nations of Europe. Its true character has been divulged by V. Gordon Childe, who says, "We may then regard the tall brachycephalic blonds as ethnically and culturally mixed...At least by the time of the Aryan dispersion, it is improbable that the Nordic or any other stock was strictly pure. Now, certain arguments extraneous at once to anthropology, archaeology and philology have been adduced to fortify their claim. The pioneers of the Nordic hypothesis and many of their disciples have ascribed to

¹⁸ Penka—"*Der Herkunft der Arier*," "*Origines Ariacae*".

¹⁹ S. Feist, "*Indo-Germanen und Germanen*." pp. 38-57 ; 136.

* S. Feist, "*Kultur, Ausbreitung und Herkunft der Indo-germanen*" "*Indogermanen und Germanen*" p. 139.

the Nordic race as such a physical superiority corresponding to the linguistic pre-eminence of Indo-European speech and have sought to deduce from the skeletal build of the Nordic the psychological characters which they regard as peculiarly Aryan. Penka in Germany and Lapouge in France wax lyrical in praise of the virtues of the tall blonds, and these panegyrics are still echoed by more popular writers, Dean Inge for example, in other countries, and, above all, in Germany. ...It seems to-day unnecessary to quote further from the rhapsodies of those who have been called the "anthropo-sociologists" or to criticize their premises.

"The correlation between cranial contours and intellectual characters, if any, has yet to be discovered...As a contribution to the identification of the Aryans the fantasies of the anthropo-sociologists are quite worthless—they are positively mischievous. They have induced their votaries to postulate all sorts of migrations, for which there is as yet not a particle of evidence....The apotheosis of the Nordics has been linked with the policies of *imperialism and world domination*: the word Aryan has become the watchword of dangerous factions and especially of the more brutal and blatant terms of anti-Semitism...the gravest objection to the word Aryan is its association with programs".²⁰

Yet Gordon Childe himself is a defender of the Nordic characteristics of the original Indo-

²⁰ W. F. Ripley, *The Races of Europe*, pp. 501-502. *op. cit.*, p. 220.

European-speaking people...But he located the cradle of his Nordic Indo-Europeans in the South Russian Steppes. Thus he says, "The climate and physiographic features thereof, as Otto Schrader so convincingly argued, correspond admirably to the characters of the (I) Aryan cradle as deduced by linguistic palaeontology...The people interred were generally tall, dolichocephalic, orthognathic and leptorrhine,—in a word, Nordics. There was, however, at least a small minority of brachycephals present in the population." In a word, he identifies the Kurgan people with his Nordic Aryans, though as he admits they were a heterogeneous people. Further he says, "The Nordics were here in a chalcolithic phase of culture." Then he asks the question himself—"Can we then call these 'neolithic' people of the Steppes Aryans without qualification, or were they just a branch of that stock as the Germanists contend? Professor Myers, Professor Haddon and Mr. Peake all incline to the former hypothesis... Their thesis plainly implies in the first place the existence of a pre-neolithic population in South-East Russia, and secondly, that this population having acquired or elaborated the neolithic civilization...sent out bodies of immigrants to carry that culture to the rest of Europe. They might be Haddon's Proto-Nordics." As regards the connection between these Proto-Nordics and India he again says, "Our present hypothesis also presupposes migrations from the steppes not only to the South-East (Mesopotamia and Iran) and the South-West (Troy and the Balkan); but also

to the North and North-West; the Germanists only admit the former movements." In tracing these migrations he further says, "We may suspect that the ancestors of the Indians and the Iranians discovered as free-booters the road that eventually led them to the throne of Mitanni and to the Indus Valley". But ultimately his confidence in his own hypothesis has been shaken as he admits. He says, "In default of this only the Germanist theory is left. The ochre-grave folk will still be Aryans but not *the* Aryans."

But the hypothesis of the Proto-Nordics from the East has caught the imagination of some. Dixon²¹ probably renames this hypothetical race as the "Caspian" and locates it near the Aral-Caspian basin and Von Eickstedt, the chief protagonist of this thesis in Germany, sees the cradle of evolution of his Proto-Nordics still further east, and he locates it in South-Western-Siberia²² in the Turanian Steppes. Here Jochelson Brodsky's investigations amongst the Siberian Tartars have stood in good need to Von Eickstedt. Jochelson has

I. The Indologist Otto Schrader was the first to advance the hypothesis that South Russia was the original cradle of the Indo-European speaking people: *vide* his "Real-Lexicon der Indo-Germanischen Altertumskunde, Bk. II", pp. 585.

II; a; b. V. G. Childe op.cit. pp. 183-188 f, a, Ibid-9, 10, 11 V. G. Childe op cit. pp 193. 194. 200.

²¹ Dixon-- "Racial History of Mankind." pp. 245-246.

Dixon describes the Caspian as "horse-loving nomad warriors, fair-skinned and having ingrained in them a tendency towards blondness" (p. 245-246).

²² V. Eickstedt, "Rassenkunde and Rassengeschichte der Menschheit" p. 263f.

discovered blond elements with European features amongst some of the Tartar peoples of this locality. Hence Von Eickstedt argues that this place must be the spot where the first depigmentation of men has taken place. According to him this blond Asiatic Nordics (Nordform) finally went to Europe and Indo-Europeanized Europe.

Here one fact is to be noticed, namely, that the protagonists²³ of the Nordic thesis as well as the Proto-Nordic one have described the original Indo-European-speaking people as blonds. According to the Germanists the blond biotype can have evolved only in the *milieu* of North Europe. They do not admit a simultaneous or different origins of the blond type of men who are to be found in North-Africa and North-Asia as well. Hence to them, the blond type of men having originated in North Europe have migrated to North-Africa and Asia. This blond type of man, we have seen before, has been identified by them as tall dolichocephal-leptorrhine which they formerly named as "German", but now-a-days the name "Nordic" has been set up. But as in the North-Eastern part of Europe the Finno-Ugrian-speaking²⁴ peoples are brachycephals and blonds as well, a new race

²³ E. Von Eickstedt, "Rassekunde und Rassengeschichte der Golakhand. 18 Menschheit". p. 40 f

²⁴ Now-a-days some differentiate the Nordics from the blonds. Hilden has differentiated the blond North-Europeans into "Nordic" which is tall, blue-eyed and long-headed, and the "East-Baltic race" which is blond, brachycephalic and with marked cheekbone" (Vide R. R. Gates—"Heredity in Man," pp. 303-204,

has been created by some and named as "East Baltic" which is described as blond-brachycephalic with marked cheek-bones. This description clearly betrays the Tartaric origin of the Finno-Urgic-speaking²⁵ peoples of North-Eastern Europe. Again, Jochelson in his "Peoples of Asiatic Russia" (*American Museum of Natural History*, 1928) has demonstrated the existence of a blond racial element amongst the Siberian Tartars. Relying on Jochelson, Von Eickstedt describes his Siberian race (Sibiriden) as having clear, pleasing North-European-features, and some of the Western groups show up to 36% blue and grey eye-colour. Also brown and wavy hair is to be met with amongst them. The straight and black hair known as the Mongolian characteristic of hair-form is unknown. Sometimes red beard is to be met with. The skin-colour, especially amongst the young women, has got a red glitter which is only to be found amongst the North-Europeans. The peculiar primitive characteristics are lacking; compare the red beards of the Yuechi pictures collected from Turfan and deposited in the Berlin Ethnological Museum; also compare the red beard of the *Kalajavana* described in the *Garga Samhita*; *Vide* Von Eickstedt, *op cit.* p. 217.

The main support of the Germanists that the blond biotype can have evolved only in North-Europe thus falls to the ground. We see that a blond type is to be found in Siberia as well, and blond groups of men are to be found amongst

²⁵ R. R. Gates,—pp. cit P. 304,

the Tartar races of Europe and Asia. Any suggestion that these blond tribes are the result of miscegenation of the native tribes with the Nordics of Europe cannot be entertained, as it is not possible that the North-European Nordics have spread over such a stretch of the earth to impart this blond characteristic on the native populations of Asia without leaving any linguistic and ethnic traces on the same people. As attested by the historians, Edouard Meyer and Von Eickstedt, history does not bear out any wandering from the West to the East, rather in the opposite direction²⁶. Moreover, the languages of the blond Kabyles of the Atlas range of North-Africa and of the blond Tartaric tribes of Europe and Asia are not Indo-European in origin. But the hypothesis of Von Eickstedt is distasteful to the national-chauvinists of present-day Germany, and Von H. Gunther entered the lists against him. As a result, Von Eickstedt has to climb down a bit; as he says, "All these stages (of wanderings) lie on the broad northern zone of life of great Europe (Eurasia?) between England and Altai. At first, only its East was habitable, here lies the last, today's logically and biologically understood, "primitive cradle" (Urheimat). Two or three stages and two or three milleniums later, lay on the back of the Cymbric Charchonese (Jutland) the nucleus district of the German Nordic race, and when a people (Volk) is regarded as a race, here would be another "Urheimat". Thus the

²⁶ Ed; Meyer,—*"Geschichte des Altertums"* pp. 864-90; Von Eickstedt op. cit. **PP.** 267, 281.

Asiatic cradle of the North-Europeans is cleverly got rid of and the conscience of the European imperialists is satisfied!

We have traced the genesis and the present situation of the Nordic and Proto-Nordic hypothesis in a nutshell. "Nordicism" or "Germanism" arose amidst the peculiar political condition of nineteenth century Germany²⁷. "Nordicism" in the term of Germanism can be traced as early as Hegel²⁸. Nietzsche idealised it in his "blond beast" theory²⁹; the Germany of post-Versailles treaty made "Nordicism" the basis of its socio-political chauvinism. And this chauvinism of Germany has long ago been taken up by the other Germanic-speaking nations of Europe and America. It has become the political shibboleth of the occidental nations, speaking Teutonic or Germanic languages. The racial chauvinism of Germany has long been taken up by England and America³⁰. And to-day it is intertwined with the chauvinist outlook of the Germanic-speaking imperialistic nations.

Such being the nature of Nordicism and its substitute "Proto-Nordicism" which is a theory of a study-room race of some anthropological writers, we cannot see any reason why, in India, we should pin our anthropological faith in them. And

²⁷ H. Gunther—"Die nordische Rasse bei den Indogermanen Asiens" 1934. P. 233.

²⁸ Von Eicksedt; "Die rassischen Grundlagen des deutschen volkstums" 1934, P. 54.

²⁹ Hayes, "History of modern Europe" vol. II.

³⁰ *Vide* Hegel *Philosophy of History*."

why should we not consider the hypotheses of other schools which have other world-views in the matter of Indo-European or Aryan question? Regarding the origin of the Indo-European speaking peoples, the following are the important representatives of "Germanism" or "Nordicism".

1. Gobineau.—He considered the blond North-Europeans as the Indo-Europeans. Though a Frenchman he was a believer in Nordicism.
2. Houston Chamberlain,—“Civilization of the Nineteenth Century”. The book is a tirade against the Jews.
3. Poesche,—“Die Arier”,—He sought the original cradle of the blond Indo-Europeans in the sources of the Pripiet.
4. Penka,—“Die Herkunft der Arier”, “Origines Ariacae”. He regarded South Sweden as the cradle of the Indo-Europeans.
5. Lapouge.—“L’Aryan.”—He said that the Aryans belong to the Nordic race. But he placed the area of characterization of the Aryans in central Europe.
6. M. Much,—“Die Heimat der Indo-Germanen in Lichte der Urgeschichtlichen Forschung.” He regarded the Megalith culture people whom he recognized as of North European origin to have been the original Indo-Europeans.
7. G. Kossina,—“Die Indogermanische Frage Archæologisch Beantwortet”. He believes that Scandinavia was the cradle.

8. J. Hoops —“ Waldbäume und Kulturpflanzen im Germanischen Altertum.”
9. K. Helm.—“ Die Heimat der Germanen und das Meer.” He speaks of the Indo-European origin of the cradle of the Indo-Europeans.
10. Eugen Fischer.—He speaks of the Nordic origin of the Indo-Europeans. He does not advance any particular hypothesis on the subject. Vide Bauer, Fischer and Lenz. “ Human Heredity.” P. 194.
11. F. Von Luschan.—Ditto.—*vide* “ Huxley Memorial Lectures” in J. R. A. I. vol. XLI; “ Anthropology of Crete”; “ Sprachen, Rassen und Völker.”

Some of the names of those who hold contrary views are as follows :—

1. Von den Veldens.—“ Über ursprung und Herkunft der Indo-Germanischen Sprachen und avarische Sprachreste in West Europe.” 1912. He holds, on philological grounds that the Indo-European “ Germans ” during their migration in North-Europe found an allophyal aboriginal population living there. Many philologists think that traces of this aboriginal race are to be found in German language.
2. Forstemann.—“ Geschichte des deutschen Sprachstammes ” 1 PP. 321, 610 F. He speaks of the shifting of the consonants, *etc.*, in German language as due to mixture of another language or influence from allophyal languages.

3. Fr. Kauffmann.—“Das Problem der hoch deutschen Lautverschiebung” PP. 333, 393. He speaks of the second shifting of the consonants in German language.
4. Hirt.—“Die IndoGermanen” 11 P. 616. He acknowledges the shifting of the consonants in the German language. He suggests that this may be due to the subjugation of the German people by a strange race (Celts?). He speaks of East Germany or Poland being the cradle.
5. I. Bender,—“The Home of the Indo-Europeans,” 1922. He fixes the cradle between Vistula and Niemen, (P. 33). He speaks of the sound shifts in the German language (P. 49).
6. K. Norrenberg, in “Globus” B. K. 77 (1900). He speaks of the first shifting through Finnish influence, the second shifting through Etruscan-Rätian influence.
7. Fick.—“Vorgriechische Ortsnamen”. He speaks of the sound-shifts of the German language.
8. S. Feist.—“IndoGermanen und Germanen” (PP. 16-51); Aufsatz Die germanische und die hochdeutsche Laut Verschiebung, sprachlich und ethnographisch betrachtet” in PBB. 36 PP. 307-354. He maintains that an aboriginal blond Non-Indo-European population was living in Germany before the Indo-European speaking Germans settled there. And this aboriginal population, according to him has influenced the phonetic change in the German language. He says that the cradle

of the Indo-Europeans must have been in Central Asia.

9. T. E. Karsten.—“Germanische-Finnische Lehnwortstudien.” He thinks that the Proto-Germans have evolved in the North-European (early neolithic period) cradle (urheimat) under the linguistic influence of some paleolithic Non-Indo-European people.
10. J. Taylor.—“The origin of the Aryans.” He denies the dolichocephalic North-Europeans to have been the original Aryans. He points out two facts,—viz., that not all Nordics can be regarded as Aryans—many Finns belong to that stock—and that of many aryan blonds are and were brachycephalic. He says that, this has been the type of British round-barrow man, and it is represented amongst the ancient Celts and modern Slavs. The Cretan Sphakiotes (B. S. A. XVI p. 257. ff) who may be the pure descendants of the Dorians belong to the same brachycephalic group. The Galchas of the Pamir are likewise. Finally, a brachycephalic element existed in Germany, Scandinavia and Russia in neolithic times. He said that the original Aryans were tall, blond but brachycephals.
11. F. Braun.—“Die urbe Völkerung Europas und die Herkunft der Germany in (1922). He says that Indo-European problem and German problem are not identical (P. 88). He regards Indo-Germandom to be outside the racial question. It is a linguistic-ethnic com-

- munity which is evolved secondarily; likewise, the Ugro-Finnish, Semitic-Hamitic and Japhetic groups are perhaps genetically related with it (P. 88-89). He further says that "anthropologically there is no Indo-European race" (P. 16).
12. Ed. Meyer.—"Geschichte des Altertums". He spoke of the Indo-Europeans coming to Europe with their cremation system from the East in Bronze period (P. 893).
 13. Rudolf Virchow.—"Die urbevölkerung Europas" 874. He said that all European races of Aryan root have migrated from the East. (P17).
 14. W. Koppers.—"Die Indo-germanen frage im Lichte der historischen völkerkunde". in "Anthropos," BK. 30. 1935. He says that the question of the oriental origin of the Indo-European people still "holds ground amongst the majority of the ethnologists. He further says that it is too early to speak of a final solution of this question.
 15. Broca and the French school. This school maintained that the brachycephalic dark Celts were the original Aryans.
 16. G. Sergi.—He says that the Eurasiatic brachycephals of Asia brought Indo-European language and the cremation system to Europe. *Vide* "The Mediterranean Race," (PP. 262-265). In his later book "Gli Ari" in Europae in Asia" 1902 he has said that the ancestors of the European Aryans belonged to the brachycephalic race that originally lived in the

Hindukush. There, they would have learned the language of the Mediterranean Hindus and carried it with them to Europe.

The views of some of the present-day anthropologists of Germany and of the schools of other countries are well-known. For older discussions on the subject depicting different national chauvinistic world-views about this question, the reader is referred to W. Ripley's book, "The Races of Europe," Chapter on the "Aryan Controversy."

Amongst those who believe in the European origin of the Indo-Europeans though not Nordic may be mentioned :—

1. Giles—"Cambridge History of India," PP. 68-70. He advances the theory that in the Danubian Valley, the Aryans, or as he prefers to call them the *Wiros*, have evolved. From there, they have spread over Europe and Asia in 2500 B. C.
2. Schuckhardt :—"Alteuropa," 1926. He says that the Indo-Europeans are the result of a mixture of the Germans coming from the north and the Celts from the Danube area. (P. 282).
3. *Encyclopaedia Britannica*, vol. 12, 1929: "The Indo-Europeans." It says "In Germany, many scholars contend that they were tall men with fair hair and blue eyes, and they attribute to the Indo-Europeans all the characteristics of the ideal German. For this, however, there is no solid foundation.. The anthropologists at one time maintained that the Indo-Europeans had long heads as

distinct from other people with short heads... As Sir Arthur Keith points out (*Antiquity of Man* vol, P. 110) (1935). The antiquary Dr. R. R. Schmidt found at Ofnet, fifty miles south-west of Nuremberg, a large number of skull of the Azilian epoch (a period linking appaleolithic with neolithic times) some of which were long and others short. There is no reason to suppose that the Indo-Europeans had only type of skulls." (PP. 263-264.)

Amongst those who have criticised the race-theory the writings of the following authors are to be consulted.

1. Jean Fino,—“L'agonie et mont de race”. He says that the aryan theory has become the Indo-European theory, the Indo-European theory has become the German theory.
2. Lister F. Ward.—“Applied Sociology.”
3. Haddon and Huxley,—“We Europeans”.

Thus, if we wean out minds from the Pan-Germanic complex we will not bewail the absence of the dolichocephalic-leptorrhine skull in the remains of the Indus Valley Civilization. It is said that brachycephalic-leptorrhine skulls have been found out both at Mahenjo-daro and at Harappa. And according to the French school of Broca, and that of Sergi, it was³¹ the brachycephalic Eurasiatics that were the carriers of the Indo-European language to Europe. In that case, they could have been the carriers of Indo-Euro-

³¹ Vide the criticism on this theory by Lester F. Ward in “*American Journal of Sociology*” and elsewhere.

peanism to India as well. This will sound a heresy in India where, strangely enough, Germanism is the accredited hypothesis. But in our previous investigations, we have seen that the Nordic origin of the Indo-Europeans is not universally accepted even in Germany. Further, the recent discovery at Ofnet has demonstrated the old saying of Sergi, that at no period of her history there had been an uniformity of racial type in North Europe; even in the late palaeolithic age long and broad-skulled peoples were living together. Again, on the strength of our investigations, we daresay that Indo-European or Aryan has not been a race, rather it has been a philological-ethnological grouping. Rather, the three distinct races of men known as the Nordic, the Alpine, and the South-European and Asiatic Mediterraneans are the possessors of the Indo-European language. At present, some ethnologists are saying that the Mediterraneans,³² extended at one time to Central Asia, and as a result of the investigations of Daniloff,³³ it can be said that Persia is essentially a land of the Mediterraneans. As regards India, long ago, Ripley³⁴ has characterized it as the land of the Eastern Mediterraneans and recently

³² Ramsay Muir, "*Nationalism and Internationalism*" PP. 83-85; Regarding importation of this doctrine in America vide Lothrop Stoddard "*Racial Realities in Europe*."

³³ The present writer has stated elsewhere that the presence of the "Alpine" type at Mahenjodaro is not proved. The investigators have said "it is probable." Vide writer's article in *Jour. Dépt. of Letters Calcutta, University*. Vol. 26, 1935.

³⁴ Dixon—" *Racial History of Man*," PP. 329-330.

Von Eickstedt³⁵ classes them in the same category and again the British India Census Report of 1931 classes the main body of the Indians as belonging to the Mediterranean race.

On these accounts, the presence of the Alpines, and the Mediterraneans in the remains of the Indus Valley Civilization is not to be wondered at. We have no right to identify a particular biotype with the Vedic Aryans. If the unbiased opinion of the European savants is that the original Indo-European-speaking people cannot be identified with a people with a particular head-form, likewise we have no right to identify the Vedic Aryans with a particular biotype.

Now, coming to the problem of the Vedic Aryans, we find that pan-Germanic bias is in possession of the field of enquiry of the ancient Indian civilization and Indian scholars are imbibing it through the medium of the English language. Zimmer³⁶ drew a similarity between the evolution of the Vedic people with that of the ancient Germans. This view, with little modification, has been accepted in the Vedic Index of Keith and Macdonell. In the field of anthropology, "Germanism" reigns supreme in India. The Indians being intellectually isolated from the rest of the cultural world, and seeing the outside world only through the English language, have accepted the views of the 'Master' people as the

³⁵ Daniloff—" *Characteristics of the Persians* ". [in Russian.]

³⁶ W. Ripley—" *The Races of Europe* ."

only truth. We have already seen that "Germanism" as the intellectual tool of imperialism has long been accepted by the Germanic-speaking imperialist countries. And we glory in it because it is the gift of the 'Master' people. The slave-psychology of the Indian mind is reflected in the attempt to prove that the Vedic Indians were Nordics and in the attempt to ransack the latter-day Sanskrit literature for the proofs of Nordic characteristics. But we forget that if in latter-day Sanskrit texts sentences such as "Gaura, sucochachara, pingala, kapilkesa" are to be found in Patanjali's *Mahabhasya* (V. 1. 115), and if Manu has said that a Brāhman should not marry a girl with *pingala* hair (38) there are other sentences of previous ages which contradict the strength of these characteristics. But with the help of these two sentences attempt is being made to prove the existence of Nordic characteristics amongst the Indian people, and we forget that the Vedas themselves speak of the black hair on man's head and the God Rudra is described to have possessed golden-coloured arms (White *Jajurveda*³⁷ B. K. 16th *Satarudriya* 17). He is also described as "the golden-haired wearer of the sacrificial cord." In the *Rig-Veda*, Indra is described as "of yellow colour" (3. 44. 4). He is also described as "golden coloured" (5. 38. 1). Again, *Rudra* is described as "the brown-hued piercer" (*Satarudriya*

³⁷ Von Eickstedt—*Rassenkunde Und Rassengechichte der Menschheit*. He says that from the last glacial period the Proto-Mediterrineans have occupied the south of the Iran-Himalayan ridge Op. cit. P. 506.

18). Also, in the same Veda the God Savitar (Sun) is called as the "golden-handed" in several places (BK. 1. 20, BK. IV 25, BK. 34. 25.). Again, the Atharva Veda (BK. VI 137. 2-3) in its incantation "to fasten and increase the hair" on the head prays, "let the black hair grow out of thy head like reeds."³⁸

Thus, here we clearly get the description of Vedic people having black hair. This clearly contradicts the saying of Patanjali who might have described the Brahmins of a particular locality.³⁹ But in the Vedas we are safely anchored in the facts that the Vedic Brahmins had black hair, hence they were not blond men. As regards the descriptions of the Gods themselves, though we read about the golden hair of Rudra, yet we cannot make a Nordic viking out of him, as he had a brown-hued skin-colour and golden-coloured arm. As according to physical anthropology, there is generally a correlation between skin, hair and eye colour, hence this illustration is nullified. Again, the same complexion is ascribed to Sabitar and Indra. Hence all these prove⁴⁰ that the Gods were brunettes. Of course

³⁸ Vide Zimmer—"alt indisches leben."

³⁹ Vide *Baudhayana Dharma Sutra* I. 2. 3. 5, which says that "A passage of the revealed texts [*Sruti*] declares "let him kindle the sacrificial fires while his hair is [still] black." The same sentence has been quoted by Sabara in his Bhasya on Jaimini, 1. 3. 3. This Vedic sentence speaks of the black hair of the Vedic Brahmins. Vide also *Atharva-Veda* (6. 137.) which speaks of the black hair on the head of a man.

⁴⁰ R. T. H. Griffith—"The Texts of the white Yajur-veda," Bks. III-XXXIV. PP. 24-283.

in the same Veda the Sabitar is described as the golden-eyed (BK. 34. 24.) But by any stretch of imagination we cannot make a "golden-eye" into a blond one.⁴¹ The brunette or brown-hued person having golden hair is a biological cross-breed. Surely, we cannot take the god Rudra as a specimen of race-miscegenation. The only way left to explain this description is that the fiery Rudra is metaphorically called as having golden-coloured hair. The other characteristics do not correlate with this hair characteristic. Again, the Sun-God is spoken of as "Golden-handed." This further proves the brunette character of the Vedic gods. In the Rigveda the white-skinned friends (*Sakhibhih-Svitnyebhih*) of Indra are spoken (II 18) of but in the same book Indra is spoken of as yellow or golden coloured. Hence it does not give us any clue regarding the blond characteristics of the Vedic gods or of the Vedic peoples. The possession of a white skin does not make a person blond or Nordic. Whiteness of skin colour is a comparative term. By "White-skinned friends of Indra", the commentator Sayana has meant "the divine friends of god Indra." In contrast to the earthly men, the heavenly persons are spotless. According to the Hindu religious conception, "the incorporate spirit *dehin* is said to be without colour, but it is tinged with the fruit of acts, and so said to attain colour (*varna*), which is of course specifically "darkness." But when the creature by means of knowledge puts off darkness, born of ignorance, then appears eternal Brahman (pure,

⁴¹ Atharva Veda translated by Whitney.

without colour)." Again, "Spirit has six colours :— White is best, spotless,⁴² without sorrow, leading to success." Thus the heavenly spiritual personalities are spotless, *i. e.*, white, and we should not wonder if the divine friends of Indra are described as whites. But these metaphorical expressions regarding the gods cannot be put as anthropological data to prove a theory. The Vedas are clear regarding the physical description of the living persons of that period, and we need not take the allegorical or metaphorical descriptions of the gods or goddesses as anthropological data to prove the Viking affinities of the Vedic Aryans.

Again, as regards the meaning of the much-vexed words, *piṅgala* and *kapisa*, in the old Samskrit lexicon of Halāyudha called "Abhidhān Ratnamālā" edited with a Sanskrit-English Glossary by Th. Aufrecht, the word *kapisa* stands for dark-brown colour and the word *piṅgala* for brown or tawny colour.

Thus, a person having dark-brown eyes and brown or tawny hair or brown or tawny-coloured eyes and dark-brown coloured hair cannot be called a blond person. Persons with brown coloured

⁴² The birth place of Patanjali is not undisputedly identified. Rajani Kanta Gupta's identification of Gonarda which is again identified by R. G. Bhandarkar with modern Gonda of the U. P. is disputed (*Vide*, Historical investigation on Panini [in Bengali] pp. 120-121). It seems that Patanjali had a vague idea of the East and the North of India. He had good ideas of the west (Saurashtra and Kamboja). *Vide* Introduction to Mahabhasya; Patanjali was an admirer of the Atharva-Veda. It is said that the Atharva Veda stands under Iranian influence, and the Atharvan-Brahmans are similar with the Persian Athravans.

iris and with tawny hair can be met with galore even in present-day India. Surely persons with these physical characteristics are not of Nordic or proto-Nordic affinities. In our zeal to prove the Nordic affinities of the Vedic Indo-aryans, we forget that the ancient Hindu poets have depicted the Rakshasas who are described as demons and the destroyers of Hindu sacrifices, to have *pingala* eyes and hair. Thus in the *Rāmāyana*, *Aranya Kanda* 17 svarag, Surpanakhā is described as having *pingala* eyes. Again in the same place, some other Rakshasa women are described as having *pingala* eyes. Again in *Mahabharata*, Rakshasa Baka is described as having eyes, beard and hair of red colour (*Adiparva*, ch, 223). Again in the same Epic, the divine nymph (Apsara) Urvashi is described as having copper-coloured fingers (*Karna Parva*, ch, 43). Further in *Bhāṭṭikāvya*, the Rakshasas are described as having *pingala* hair and *pingala* eyes (canto. II 30). Will the physical description of the Rakshasas, which are given from the ancient Epics down to a poetical work of a comparatively modern time, be taken as anthropological data? Will, on the basis of this evidence, the Rakshasas, who have been described in the Sanskrit Literature as the enemies of Aryan religion and Aryan people, be taken as blonds or Nordics? If the Vedic allegories be accepted as anthropological evidence, then the evidence regarding the Rakshasas should be taken in the same spirit.

But we beg to state that both kinds of these allegories should be accepted as poetical fancies. They cannot be used as scientific data, for anthropolo-

gical purpose. If we are to accept any data from the Vedas, then the data of dealing with the hair-colour of men and women must be taken. And on the strength of this somatic data we cannot say that the Vedic peoples were blonds. All that can be predicated in this matter is that it is not improbable that the Vedic Aryans racially were not a homogeneous people. In Afghanistan and in the Hindukush region we find a medley of racial types. Dixon speaks of "the presence with the Caspian type of a moderate factor of Mediterranean in the Punjab"⁴³. The reporter of the Indus Valley Civilization admits that, "As far back as its history can be traced, the population of Sind and the Punjab had been a blend of many diverse elements and there is no reason for assuming that it was other than heterogeneous in the earlier age with which we are now concerned."⁴⁴ Further it is not probable that the Indo-European-speaking people when they appeared in the history of different countries were racially a homogeneous people. The splitting up of the Indo-European language into "Satem" and "Centum" groups would suppose racial divergence, and we see that different racial types are the speakers of the same language. For that reason, the Vedic people cannot be identified with any particular biotype.

⁴³ R. Martin. vol I, 517.

⁴⁴ Rudolf Martin describes the members 13-16 of his "Augenfarbentafel" from light grey to light blue as blue. Blue is blond and not grey which he takes as "mixed" "meliert" vide *Lehrbuch der Anthropologie* vol. 218-219.

Compare with it the description of the "white-armed Juno" of the Iliad. What a contrast and a clear anthropological proof!

In this matter, Marshall himself has said that it is still debatable whether the Vedic Aryans were blond Nordics or brunette Mediterraneans or broad-headed Alpines (though this is hardly likely) or perhaps a mixture of all these⁴⁵."

Hear his own conclusion supports our contentions that the absence of the remains of any dolicocephali-leptorrhin skull in the mounds of Harappa and Mahenjo-daro does not warrant us to believe the non-presence of the Aryan-speaking people in the period of Indus Valley Culture. If we wean our mind away from the complex of "Germanism,"⁴⁶ it will be easier from the anthropological stand-point to see the Indo-European-speaking people in the same region in the chalcolithic age. The archæologists opine that the various Indo-European peoples when they first appeared in history were in the neolithic or chalcolithic stage of culture*; But as Childe says;

⁴⁵ E. W. Hopkin—quoted in "The great Epic of India," PP. 179-190. In this matter we should remember the complaint of Sergi regarding the attempt of the modern North-European scholars who try to use the descriptions of the Homeric gods as anthropological data to prove the Nordic theory. Zenaide Ragozin makes a blond man out of the god Agni, because as he had red hair, hence he must have had blue eyes. But the Vedas allegorically described the flames of the sacrificials fire as the hair of Agni. This allegory cannot be used as Somatological data.

⁴⁶ Dixon-op, cit. vol I. P. 262.

* In the modern Sanskrit English Dictionary of A. A. Macdonell entitled "A Practical Sanskrit Dictionary" the word pingala stands for tawny-eyed or red-eyed as of Siva and of Danava, and the word kapila stands for brownish. Here it should be mentioned that the meanings given in the dictionary are contradictory in terms. A thing can be either tawny or red, either brown or red. It cannot be both. A tawny-coloured or red coloured eye-iris is an unknown quantity in anthropological nomenclature. Hence, no anthropological data are to adduced from these expressions of doubtful meanings.

"The correlation of cultural with racial groups is generally hazaradous and speculative,"⁴⁷ Yet the archæologists speak of the "Aryan" groups being in the Bronze Age. And the abovementioned author opines that "the royal grave of the copper age on the Kuban and the Terek (both in the Caucasus) were built by the ancestors of the Indo-Iranians⁴⁸. Of course this is based on the supposition that the Mittanians were Proto-Indians. But be it what it may, the question is, whether the Vedic people were in the copper age? About it we will speak later. Marshall speaks of the Indus Valley Civilization being in the chalcolithic age,⁴⁹ and he further says that "it was part and parcel of that greater civilization which during the chalcolithic age extended across the broad Afrasian belt, and that it was intimately related to other branches of that civilization in Western Persia and Mesopotamia became clear almost from the first moment of its discovery."⁵⁰

An investigation on this subject will make us see that this culture of the chalcolithic age did not stand singly alone with a particular racial or linguistic group of people. The Philologists like Hommel suggest a period when the

⁴⁷ Marshall, op. cit. vol. I. P. 109.

⁴⁸ Ibid—, op. cit. Vol I. PP. 110.

⁴⁹ Vide Ipsen, "Sumero-akkadisch Lehnwörter in Indo-Germanischen" in "Indo-Germanische Forschungen." XLI, P. 417.

⁵⁰ ⁴⁹ Marshall's doubt about the broad-headed Alpines being Aryan shows the bias of "Germanism" in him. We have seen that there are scholars of other schools who are as strong in their views as the Pan-Germanists.

Aryans were living in contiguity with the Semeitic people. Hence the tradition of the flood has crept into Sanskrit Literature.* Further, Childe says, "Philology suggests contact between the undivided Aryans and the Sumero-Akkadians.⁵¹ Just so the industry of the steppe graves bears upon it the unmistakeable imprint of Mesopotamian civilization in the creation of which the Sumerians played the leading role."⁵²

Further in the stretch of Eurasian land with Anau† as its apex in the Asiatic portion, the Indus Valley in the East, Mesopotamia in the Asiatic West, with Koban,⁵³ Kuban and Terek in the Caucasus and beyond these boundaries with Halstatt in Central Europe, certain cultural connections are traceable. Hence we cannot identify the culture of a particular region with a particular racial type. If at Halstatt the skulls of the brachycephalic Alpines and the dolichocephalic Mediterraneans⁵⁴ have been found out, Buxton and Rice found out the same types at Kish; and again Messrs Sewell and Guha have discovered the same elements in the skeletal remains of the Indus-Valley Civilization. Again, as said before, the brachycephalic skulls identified as Alpine by Sewell have been found at Harappa. Further,

* V. G. Childe-op. cit vol. PP. 84-85, 188.

⁵², ⁵³ Ibid-op. cit PP. 200; 202.

† The Indologists have not considered the question of the "Panis" in all its aspects. The Panis were traders and enemies of Indra. It might be that these were the Phoenicians whose tradition was that they came from the Persian Gulf. *Vide* Hall, "History of the Near East" p. 159.

⁵⁴, ⁵⁵ Marshall. op. cit. vol. I. pp. 93; 93.

the dolichocephalic infant skull measured by Sergi from Anau has been classed by him as Mediterranean.⁵⁵ Again, we have heard before, that the Mediterraneans were living in Central Asia, in the second millenium B. C. It is clear that in the south of the mountain axis, in the western part of Central Asia, the brown dolichocephals are to be found while in the North of it the brachycephal Eurasiatics. The watershed of the Hindukush is not only the dividing line between the Iranian and the Indic language groups, but also between the racial types, and both the groups speak a closely allied branch of the Indo-European language.

Taking these matters into consideration, it is difficult to distinguish any particular linguistic-ethnic group as Āryans; and it is hard to say which one of these groups introduced the Indo-European language in India. If there was a cultural connection between the Indus-Valley Civilization and Mesopotamia, there were cultural connections also with the regions beyond the latter one, viz: if urn-burial has been discovered at at Harappa, the same custom has been found out at Anau and elsewhere as well. Again, the discovery of the names of the Vedic gods, and a Sanskritic language at Mitanni on the Upper Euphrates raises knotty questions in the already complicated Indo-European problem.

Thus it is evident that the Indus Valley civilization and Harappa culture are parts of a very big cultural complex. Indo-European and Non-

Indo-European peoples both are to be supposed to have taken part in building up this complex from the Chalcolithic and Neolithic Ages.

Hence, out of this complex we cannot distinguish a group with particular somatic characteristics as Indo-Europeans or Aryans. For this reason we cannot say that the absence of certain physical traits in the skeletal remains of the Indus Valley civilization disproves the non-presence of the Aryan people in that period of India. Yet the question of dolichocephal-leptorrhine somatic characteristics scares away the supposition of the Aryan element in this period of India. We have already seen that the very idea of the broad-headed Alpines being the Vedic Aryans is repugnant to the protagonists of "Germanism." Hence, we will have to investigate further regarding the trace of the dolichocephal-leptorrhine element in India.

Long-long-ago, Deniker, an anthropologist of Russian origin, described the long-headed and narrow-nosed, tall, and brown-skinned people to be found in the Hindu-Kush side and in the Punjab as the Indo-Afghan." Later, Risley described this type of people who are to be found in North India as pure "Indo-Aryans". He found the people of the Punjab and Rajputana as having these characteristics. Now, in the remains of the Indus Valley Civilization, no skeletal remains of this description have been found out by the investigations. Hence it is surmised that the Aryan element had been absent in this period in North India. Further, some of the

Pan-Germanists identify the presence of the present-day dolichocophal-leptorrhine with the former presence of the Indo-European Nordics in India. But as Deniker and Aurel Stein have anthropologically demonstrated that the element is brown while the North-European element is blond. The Mendelian law has been requisitioned to prove that in the Indian *milieu* the blond traits have disappeared, and the dark element inheriting the somatic traits of long skulls, narrow nose and tall figure from the father's side and the dark skin from the mother's side, have taken its rise. But the study of the working of the Mendelian law in the cross-breeds between the European whites and the African blacks so far made by Fischer and Davenport shows that the parental characters re-appear again, or as Von Luschan has demonstrated that the phenomenon of "Entmischung" takes place which makes the reappearance of the parental type in the midst of the cross-breeds possible. If a mixture between the blond Nordics of Europe and the autochthones of India, really had taken place then according to the Mendelian law, the above-mentioned phenomenon would have taken place in North India, and we would have found the blonds in the same region. But Risley does not report about the presence of the blond traits in the Punjab, neither does Von Eickskedt, who has made a close investigation of the Sikh-Jats by the help of the modern scientific technique, find trace of any blond element in the midst of these people who are reputed to be a dolichocephal-leptor-

rhin tall people. He has found out only one of his Sikh subjects (No. 58 of his data) with light-coloured hair. Regarding this, he asked whether this may not be due to foreign influence in historic times. But at the same time he found out numerous of his subjects with West-Asiatic (bent or hooked) nose. He himself calls these as the "North-Indians," and classes them as belonging to the East-Mediterranean Race.

The origin of dolichocephal-leptorrhin tall and brown-skinned biotype is the bone of contention. The theories regarding its origin oscillate between Nordic, Mediterranean and the Proto-Nordic hypotheses, the latter being the latest fashion. But it seems that in order to cut the Gordian knot, Haddon says, "The Indo-Afghan may be regarded as a special stock developed in an area of characterisation." And already Guiffrida-Ruggeri in order to solve the Indo-European question has advanced the hypothesis that "*Homo-Indo-Europeanus*" is divided into *Dolichomorphus* and *Brachymorphus*. According to the hypothesis of Guiffrida Ruggeri, the so-called Alpine skulls discovered in the Indus Valley may have belonged to the Aryan-speaking people as in his list of the "*Homo Indo-Europeanus Brachymorphus*" variety, all the groups with the exception of the Georgians speak Indo-European languages.

But as regards the origin of the biotype under discussion he says, "The branch that went towards the East and proceeded into India, being obliged to pass across the regions already inhabit-

ed by tribes related to the Medeterranians and perhaps also, as we believe, by tribes akin to the Dravidians, appear anthropologically to have been very brown dolichocephals...It is evident, that it is useless and vain to ask who were the Aryan languages spread from a very northern centre, and that without any special regard for the dolichocephals or the dolichocephal. Here Guiffrida-Ruggeri has made a clear distinction between race and language; all of his "Leucoderms" do not speak some Indo-European language. According to him the brown-skinned Indo-Afghans who speak different varieties of Indo-European language seem not to have been a pure one, because the racial migrations did not proceed over lands filled with vacuum. Further, he says, "that he is in favour of the Haddon-Chanda hypothesis as regards leucodermic India." As he says, "Chanda believes that the hypothesis of Haddon may be really true." It seems quite probable that these brachycephals are the result of an unrecorded migration of some members of the Alpine race.* At the same time it must have happened that when penetrating into India the immigrants of the type of *Homo Alpinus* found the middle portion of the Gangetic plain...in possession of the Vedic Āryans. Thus, Guiffrida-Ruggeri accepts the Vedic Āryans to have been the older immigrants than the

* Haddon—"The Races of Man" pp. 60-61, "The Wanderings of People" P. 27.

⁵⁶ Guiffrida-Ruggeri—op. cit. pp. 48-50.

⁵⁷ B. N. Datta. "Eine untersuchung der Rassen-elemente in Beluchistan. Afghanistan und den Nachbarländern des Hindu-kusch" submitted to Hamburg University in 1923.

"Alpines." The present writer has expressed the same view that it may be possible that the brown-skinned dolichocephalic-leptorrhines called the "Indo-Afghans" were older immigrants than the brachycephal-leptorrhines called the "Armenoid" (corresponding term for the European nomenclature Alpine* race). It seems the hypothesis of the presence of tall dolichocephal-leptorrhines called the Indo-Afghans in Northern-India is the knotty point in Indian Anthropology. We have seen that it is maintained that this brown-skinned biotype is the real Indo-Aryan. Hence, the hypothesis of the 'Nordic,' 'Proto-Nordic,' 'locally characterized people,' etc., have been advanced to fit in with this anthropological type. But the question is whether there is such a race living only in the Punjab and its neighbourhood and what is its date of migration.

In order to investigate the contention, the present writer has made a biometric analysis of some of the data given in Risley's "Tribes and Castes of Bengal" in an article of his called "Das Indische Kasten-system." In it he has shown that amongst the Punjab castes, with the Khatri⁵⁸ (a high caste), the Dolichoid (Dolichocephal-Mesocephal) mesorrhin characteristics are to be found in 68%, the Dolichoid-leptorrhin characteristics in 35%, and the Dolichoid-chamoerrhiny in 50%. Again with the Jat-Sikhs (a peasantry class) Dolichoid-leptorrhiny is present in 57%.

* Vide Von-Luschan—"Rassen, Sprachen und volker."

⁵⁸ B. N. Datta—"Das Indische Kasten system" *Anthropos* pp. 22, 1927,

Further amongst the 75 Jat-Sikh subjects measured by Von Eickstedt⁵⁹ 73% are dolichoid-leptorrhins, and 27% are Dolichoid-mesorrhins. As regards the Arora (a mercantile caste) the dolichoid-mesorrhiny is present in 74% and dolichoid-leptorrhiny is present in 26%. Again, in the case of the Churā (an untouchable caste) Dolichoid-mesorrhiny is present in 80%, Dolichoid-leptorrhiny in 14% and Dolichoid-chamerhiny in 50%.

Then with the exception of the peasantry-population—the Jāts (the subjects are Sikhs by religion),—the other castes have not Dolichoid-leptorrhiny in majority. Rather it is evident that from the standpoint of physical anthropology, these castes are heterogeneous in their composition. Hence the talk of a pure Indo-Āryan race which is dolichocephal and leptorrhin in characteristics vanishes to nonentity when the arithmetical average on which the hypothetic race is built up is analysed. On this account it cannot be said that the Punjab is peopled only by the biotype in question.

Again, if we analyse the data of some of the castes of the Upper-Gangetic valley (former North-Western Provinces), we find that the Brāhman have got 63% of dolichoid-mesorrhiny, 25% of dolichoid-leptorrhiny, 11% of Dolichoid-chamoerrhiny and 1% of Brachycephal-mesorrhiny. As regards the Chhatri which is the same as the caste Rajput (another of Risley's pure Āryan castes), it

⁵⁹ Von Eickstedt. "Rassen Elemente der Sikh,"

has got 69% Dolichoïd-mesorrhiny, 8% Dolichoïd-leptorrhiny, 20% of Dolichoïd-chamoerrhiny and 3% of Brachycephal-leptorrhiny. Thus on a close investigation, pure Indo-Aryan castes of long-skulled narrow-nosed traits vanish into nonentities.

Of course, from the meagre data that could be got previously regarding the Hindukush tribes, it has been found that there is a racial element which Joyce describes as "brown,⁶⁰ mesaticephalic, tall, prominent and aquiline nose, black wavy hair, dark eyes."⁶¹ To this type, Deniker has given the name—"Indo Afghan."* But it is evident from the anthropological reports that the peoples living in this neighbourhood are of heterogeneous composition. The Ethnographical Reporter of the British Indian Census Report of 1931, Dr. Guha, says, "It appears several racial strains have gone into the composition of the tribes, living in the North-Western Himalayan regions."⁶² Thus the question of the presence of a pure long-skulled narrow-nosed race of people cannot arise. Again, the reporter summarizing his anthropometric results says,—"From the beginning

⁶⁰ Guha says that a high percentage of blond element exists amongst these tribes. Vide, C. P.

* The Afghans speak the Pusta language which is Iranic and some of the Hindukush tribes speak the "Kho" language which according to Grierson is a class by itself; again the Punjab people speak Sanskritic language. Thus philologically the "Indo-Afghan" race is not homogeneous.

⁶¹ Joyce—J. A. Inst. B. K. XVI. p. 469.

⁶² Census of India, 1931. Vol. I. India p. III. Ethnographical pp. xxi-xxii.

of the 4th millenium B. C. North-western India seemed to have been in the occupation of a long-headed race with high cranial vault, long face and narrow prominent nose. Side by side with these we find the existence of another very powerfully built race also long-headed, but with lower cranial vault, and equally long face and narrow nose, though the latter was not so high-pitched as that of the former.

A third type with broader head and apparently Armenoid affinities also existed but whose advent occurred probably somewhat later, judged by the age of the site at Harappa from which most of these latter type of skulls⁶³ came. Here, the anthropometric reporter speaks of two kinds of long-headed and narrow-nosed types that are to be found in the North-Western part of India. Now, the question is which of these types is the Indo-Afghan of Deniker or "Indo-Aryan" of Risley, the absence of the remains of which in the Indus Valley civilization indicates the makers of this culture to be non-Āryans? Elsewhere, under the caption "Conclusions," the Census Ethnographic Reporter has identified "the tall dolichocephalic-leptorrhine element with light skin, eye and hair" to be the same with the "Aryan" of India.⁶⁴

But the tribes mentioned by him in whom he has found a substratum with these characteristics, speak, according to the philologists, Non-Indian, Indo-European languages.⁶⁵ Of course race and

⁶³ Ibid. pp. lxxi.

⁶⁴ Ibid. pp. xxi-xxii.

⁶⁵ According to Geiger the "Phustu" language is Iranic; *vide* "Grundriss der Iranische Sprache," and according to Grierson the dialects spoken in the Pamirs are non-Sanskritic and he classes them as "Kho" languages *vide* "The Paisacha Prakrit."

language cannot be identified here as well. All that we can ask is whether these peoples belonged to the same cultural-ethnic group known as the *Vedic-Aryans*. Then he identifies another racial strain which is characterized by a long head, aquiline nose, rosy-white complexion but brown eyes and hair to be the same as Fischer's *Oriental race*.⁶⁶ As regards the brachycephalic race with long and frequently aquiline nose he identifies it as "allied to the Dinaric race of Europe or what Eugen Fischer calls the Near Eastern race."⁶⁷ This is what is generally called in German as "Vorder-Asiatische Rasse" or what Von Luschan has named as the "Armenoid Race" as the Asiatic equivalent of the European nomenclature "Alpine."⁶⁸ The Indian ethnographic Reporter while speaking about the Harappa skulls have called this type as of "apparently Armenoid affinities."⁶⁹ But the data of the advent of this element seems to be confused by the same reporter. If he means both the abovementioned elements to be the same, then in "Conclusions" he has spoken of the intrusion of this Dinaric race that it "must have taken place later,"⁷⁰ but he places this period to a very late historic time, as he says.—"This Dinaric race was probably dislodged from Persian Turkestan by the Mongol invasion, and its penetration in the Indian territories has since been steadily continu-

⁶⁶ Ibid. op. cit. pp. xxi-xxii.

⁶⁷, ⁶⁸, Census Report—pp. xxi-xxii.

⁶⁹ Von Luschan—"Rassen sprachen und volker."

⁷⁰ Census Report, op. cit. p. IXXI.

ing.”⁷¹ But while summarizing the results we have already seen that he fixes the date of the intrusion of this type to be later than the migration of the above-mentioned two long-headed racial elements, and he identifies it with the Alpine type of skull found at Harappa, “from which most of these latter type of skulls came.”⁷² If the advent of the near Asiatic racial element in the Indian territories be due to the Mongol invasion (13th-14th centuries A.D.) then the same type cannot be identified with the one found at Harappa. Again, if this broad-headed element with apparently Armenoid affinities be the same element as discovered at Harappa, then the brachycephalic skull labelled as “Alpine” in Mahenjo-daro and Indus Valley civilization must be the same element which the Reporter has said to be allied to the Dinaric race of Europe or what E. Fischer calls the “Near Eastern Race.”⁷³ In that case, the Armenoid race cannot have made intrusion on the Indian territories during the Mongol invasion.**

But as ethnographic conclusions must be substantiated by archaeological and other proofs we should not dwell longer on this discussion

⁷¹ Ibid—p. lxxi.

⁷² It seems that by the “Dinaric or near Eastern Race” Guha understands the living broad-skulled, long—and acuminenosed type of the N. W. Frontier and by the type of “apparently armenoid affinities” he understands the broad-skulled narrow nosed type found at Harappa. But which “Dinaric” type Does he mean, Deniker’s or of Holden (vid. Gates—“Heredity in Man” p. 303)?

* Compare the photograph of a “non-typical Sikh in Werninger’s Die... Varderasiatische Rasse in Milt. Geo. Ges. vermn 1921.

about the periods of migrations. All that we can get from his discussions is that from the beginning of the 4th millenium B. C. two long-headed and narrow-nosed races have occupied North Western India and the broad-headed race with apparently Armenoid affinities whose remains have been found at Harappa entered India later. Now, the question that arises again is, which of these types we would identify as belonging to the Aryan-speaking group? The ethnographic Reporter further says, "It is probable that the powerfully built large-headed strain found at Mahenjo-daro forms one of the constituents of this race whose advent in India, appears to synchronise with the 'Aryan invasion.'⁷⁴ Here by the large-headed strain does he mean the "brachycephalic" element which he and Sewell have labelled as type IV and named it as Alpine in the Report on "Mahenjo-daro and Indus Valley Civilization" by Marshall.⁷⁵

* Regarding the brachycephal-leptorrhinin race that dwells on the pamirs and who are called by ujjalvy as "Savoyards attarde," R. B. Shaw says, "History tells us nothing of their arrival in their present seats, no whence they came. Their own traditions as far as we know are silent; but perhaps their language may afford some indications" (on the Galtcha language in J. A. S. B. vol. 45. Pt. I. 1876). We know that the philologists caunt the Galtcha and its allied languages as Eranian. Tomaschek in his "centralasiatischen Studien" derived the word Galtcha from the Bactrian "gairi" and by Galtcha he understands mountain-dweller. It may be the Eranian-speaking tribes are dwelling there from ancient times.

⁷³ Census Report. 1931. p. xxi.

⁷⁴ Vide "Mahenjo-daro and Indus Valley Civilization" Vol. II. pp. 643-644.

But Marshall shuts out the possibility of the "Alpine" being Aryan. Perhaps by the large-headed strain Gūha means the one labelled as "Caucasic" by Keith. Again he identifies the "Coarser" or the "Nördinden" of Eickstedt with the Proto-Nordic North Indian type.⁷⁶ But Eickstedt puts both of his Indian types (Coarse and Graceful) as belonging to the East Mediterranean racial group which he regards as a separate group and names it the "Indiden" (Indians).⁷⁷ Again, in the Sikhs (Jāt-Sikhs) of the Punjab, Von Eickstedt sees the best representatives of the North Indians.⁷⁸

The Sikhs here are the bones of contention. The Sikhs are a religious group. The Sikhs measured by Eickstedt belong to the Jāt caste. On an examination of them, he has described them on the average to be light brown in skin-colour.⁷⁹ The range of variation of skin colour is from 8 to 18 of Von Luschan's skin-colour-table, lighter complexioned members being few (only three subjects with no. 8).⁸⁰ Regarding the skin-colour, he further says that his subjects "from the mountainous Hoshiarpur district are generally about no. 12 and the most of the subjects from the Ludhiana are about no. 15, and from Patiala are about no. 14."⁸¹ Basing on this data he sees

⁷⁶ Census Report. p. xii. It seems Proto-Nordicism is the sugar-coated form of Nordicism.

^{77, 78} Von Eickstedt—"Rassenkunde und Rassen-geschichte" pp. 147; 158.

^{80, 81} Ibid—"Rassen elemente der Sikh" pp. 362; 362; 362, 363 363.

in his people of the racial element (Biotype) no. III who⁶¹ comes from the Hoshiarpur district (in Eastern Punjab and adjacent to the Vedic Brahmavarta) and from the present-day Siwalik range to be the autochthonous population mentioned in the Vedas, and these according to him "do not possess the features of the so-called Dravidian group."⁶² Again, in his biotype group nos. I, and V he sees Iranian strains coming⁶³ from historical period.⁶⁴ Further, he says, "the numerous Iranian types with bent form of nose can perhaps be taken as extreme-variations of the West-Asiatic (Near Eastern) race conditioned by the environment; and in Eastern Punjab, the last traces of these people are to be found in our Sikhs."⁶⁵

As regards the comparative light-coloured-hair (4-50 Fischer's table. Brown-black and dark-brown according to Martin.)⁶⁶ Of the subject no. 58, Von Eickstedt reminds us that the blond element* (Usun, Yue-chi and Saka) came to India along with invasions of the northern barbarians. Also, he does not think that it is impossible to see in it the European influence of modern times. Again, he finds the Dravidian type in his subject no. 71⁶⁷

* Franke says that the usuns were not blonds. The Chinese did not describe them to be blue-eyed and blond-haired people (vide "Biography of Chang Kien in T'Sien Hanch 61 fol 5Vo). According to Franke, Klaproth's translation of Han annals is free (vide Beitrage Aus chines-schen quitten Zur Kenntniss Der Turkestan) show them to be men with grey eyes, red breads and bent form of noses. The pictures are kept in the Berlin Ethnological Museum.

⁶⁶ R. Martin—Lehrbuch der Anthropologie, vol. I. p. 212.

⁶⁷ Von Eickstedt op. cit. p. 365,

Further we have seen in the biometrical analysis of the data of Von Eickstedt that 73% of his 27% are dolichoid-mesorrhins. Thus, it is evident, these Jāts are of heterogeneous somatic traits. From this biometric analyses it is clear that the theory of a long-skulled narrow-nosed Indo-Aryan race surviving in some of the castes of North India is a myth. From the above-mentioned data we cannot accept the theory of a Nordic or proto-Nordic dolichocephal-leptorrhin biotype living in North-India. Rather, we find that the castes are of heterogeneous composition, and in the Punjab in the time of the Indus Valley Civilization the people were not otherwise, as attested by the craniological examinations at Harappa. Thus the hypothesis of a long-skulled narrow-nosed Aryan race living in the Punjab both in the past and the present is not in consonance with actual anthropological facts[¶].

Thus, so far we have traced the arguments regarding the presence of the hypothetic Nordic and Proto-Nordic racial elements in India. But another side of the question remains unenquired; that is, regarding the period of migration of these tribes who are now-a-days supposed to be the descendants of the Indo-Aryans viz; the Jat,

¶ If Dolichocephal-leptorrhiny be the characteristics of the Indo-Europeans and consequently of the Indo-Aryans, then it is found all over India. In Bengal, even the untouchable "Chandal" caste has got a good percentage of the same element in it (vide Das *indische Kasten System in Anthropos*, vol. 22. 1927) and Haddon traces it in Assam even, p. 116.

the Gujar and the Rajput, who according to the ethnologists are closely allied.⁸⁸

From the time when Col. Tod wrote his "Annals of Rajputana" down to the historians⁸⁹ Vincent Smith and Bhandarkar, the historical writers have suspected foreign strains in these above-mentioned tribes and castes. The suspicion of Tod is wellknown to the readers of Indian history, *viz*, that the Rajputs claiming to be the descendants of ancient Kshatriya "Lunar" and "Solar" dynasties are nothing but Hinduized Scythians and Huns. The story of the "Agnikula Rajputs"* lends colour to this suspicion. Again, Vincent Smith says, that the Gurjar tribes have come into India in the train of the Huns. Thus he says, "Convincing even if not absolutely conclusive proof can be given that the Gurjars originally were an Asiatic horde of nomads who forced their way into India along with or soon after the White Huns in either the fifth or the sixth century...The way in which records frequently bracketed them with the Huns suggests that the two races were closely connected...We can thus see that the numismatic connection bet-

⁸⁸ Baines—Ethnography.—p. 44: Ibbetson in Punjab census Report of 1883 (reprinted in Punjab Ethnography) says "The line separating Jats, Rajputs and Certain other castes (tribes) is almost impossible of definition."

⁸⁹ R. C. Mazumdar—"The Gurjara-Pratiharas" in Jour of the Depth Letter, Calcutta University vol X. 1923, p. 21; Cunningham- E. P. Inder vol. I. p. 72; Bhandarkar-J. R. A. S. 1905 pp. 1-4 also 31-32; V. A. Smith. Ancient History of India" 3rd Ed. P. R. Bhandarkar-"Foreignelements in the Hindi population J. Ant. vol. XL.

ween the Huns and the Gurjars is extremely close... The numismatic evidence also indicates that the Gurjaras were immigrants of later date than the Huns...All observers (except Sir H. H. Risley) are agreed that the Gujars and Jats seem to be the descendants of foreign immigrants.⁹⁰ "Thus the historians and the archaeologists suspect that the tribes or the castes on whom the hypothesis of Nordic or Proto-Nordic invasion to India is based, are the invaders from Central Asia in the fifth or sixth century: That is to say, that section of the Indian population which has been supposed by Risley to be pure Indo-Āryans of dolichocephal-leptorrhin characteristic, are regarded by the historians and the archaeologists as comparatively recent immigrants to India.*" Further, we have seen that these tribes are not of homogeneous somatic traits.

Summing up our enquiries, we can say that the hypothesis of the presence of a blond dolichocephal-leptorrhin Nordic or Proto-Nordic race cannot be maintained by anthropometric investigations amongst the castes or tribes who are alleged by the protagonists of that hypothesis to be their descendants. Rather, on the basis of anthropometric enquiries, we can safely say that the present-day

* Vide "Prithwiraj Rasa" by Chand. The story of four Rajput clans originating from the sacrificial pit of vasistha is questioned by Syamaldas in J. R. A. S. vol. V. 1887. This again has been criticized by Mohan Lal Pandya and SyamSundarDas the recent editors of the poem of Chand. They maintain that the poem is authentic and as old as Chand. Vaidya in "History of Medieval India" tries to prove that the Rajputs are of Vedic Kshatriya descent which is absurd.

⁹⁰ V. A. Smith—"The Gujaras of Rajputana and Kanauj" in J. R. A. S. of Great Britain and Ireland. 1909. pp. 54-61.

population on the North-Western Frontier of India and that of North-India is composed of mixed elements; and in the age of the Indus Valley civilization, as acknowledged by Marshall, it has not been otherwise. On this account we should not be puzzled at not finding the skull of a dolichocephal-leptorrhin biotype in Harappa and elsewhere in the Indus Valley of that age. On the other hand, we can now safely say that the absence of any dolichocephal-leptorrhin skull is no proof of the non-presence of the Aryan-speaking Vedic tribes in the Indus Valley during the period of Harappa culture.

The question of the immigration of the brown-skinned, tall, long-skulled racial element in the historical period from Central Asia seems to be problematical. So far, all anthropometric investigations go to show that the present-day population of Central Asia is predominantly brachycephalic. As regards the Scythians, some of whose skulls have been discovered in European Russia, E. H. Minns says, "There was considerable variety among individuals who used objects of defined Scythic types. The last known case is that of the five skulls found in Chertombyk and discussed by K. E. Von Baer in A.S.H. Of these, two were short and two were long and one was intermediate... So too some of the skulls illustrated by Count Bobrinskoj in *Sméla* slightly suggest Mongolian forms, others are purely European (Sm II BL. XXVII-XXX). To this same conclusion came

Professor Anatole Bogdanov (*Congrès International d' Archeologie Prehistorique et d' Anthropologie*, II, 1892. P5) who says that in Scythic tombs the skulls are mostly long though occasionally Mongoloid, and notes a general tendency towards brachycephaly during the Scythic period. (*Scythians and Greeks*, pp. 46-47). As regards the historical Yue-chi who ruled in North-India for some time, the sixteen skulls that were discovered at Turfan (Eastern or Chinese Turkestan) along with the other Yue-chi remains, have been examined by Prof. H. Klaatsch who says, "Die reichen Schätze leidlicher Darstellung zeigen uns ihre Gesichtszüge, die offenbar einer Mischbevölkerung angehören. Neben deutlich mongoloiden europaisch anmuten, blond paarige menschen mit grossen Nasen und dusteen Ausdruck der Augen...Die Morphologische Analyse lasst unter dem Turfan material Verschiedene elements erkennen, die teils Ziemlich rein in die Erscheinung treten, teils in Mischung mit ein einander erkennbar sind." (The rich treasures of passionful representation show us in their features that evidently they belong to a mixed population. By the side of clearly Mongoloid traits, characteristics of pleasing, blond-haired men with big noses and gloomy expression of the eyes are to be seen...The morphological analysis of the Turfan materials would recognize different elements which appear partly in tolerable condition, partly mixed with each other). Finally he says, "What is informed to me from the archaeological side on the union of

the elements to a people finds a clear corroboration in the clearly mixed characters that are to be found in the majority of the Turfan skulls." ("Morphologische studien Zur Rassen diagnostik Der Turfan Schadel" pp. 1-47.) Thus we see that the craniometric reports on the Scythians and the Yue-chi speak of them as mixed peoples. It is not possible to trace the descent of the dark and long-headed Indian castes and tribes in question from this mixed population. In Ptolemy's list of the Sakai tribes (*vide* Ptolemy's "Geography of India and Southern Asia" translated by McCrindle in "Indian Antiquary" vol. XIII. 1894. p. 313) the names of these Indian tribes are not mentioned, though it contains the name of the "Byltai" who are probably the Balti tribe of Baltistan and who are suspected to be the descendants of the Sacai (*vide* Haddon, "The Races of Man" p. 115).

As regards the Huns, they came from the side of the Gobi desert and in their northern and western invasions they completely lost their original racial characteristics (*vide*, O. Franke-Beitrage Aus Chinesischen Quellen Zur Kenntnis Der Turkvolker und Skythen Zentral asiens" p. II.) Thus it is clear that originally they were of Altai or East-Asiatic affinities. Franke takes them to be of Turkish origin, but when they came westward they lost their original traits. Hence it is not possible for them to represent a particular biotype in India.

Thus with these data it is not possible to identify the vast numbers of the Rajputs, the Jats, the Gujars and the others with the historic Sakas, Yue-chis and the Huns. It is true, that they became Hinduized and intermarried with the Hindus, but it is improbable that these mixed hordes introduced a biotype in India.

Then we come to the question of the present-day population of Turkestan. Ujfalvy (*Les Aryans au Nord et au Sud de l'Hindukousch*, pp. 287-288.) has measured 58 Galtchas. He has called them "Brachycephales vrais" By making an analysis of the data of Ujfalvy the present writer has found (*vide* "Eine untersuchung der Rassen elemente an Baluchistan, Afghanistan und den Nacharländern der Hindukusch") that out of these data 17% are dolichoid while 83% are brachycephals. As regards the 60 Tajiks measured by Ujfalvy (*op. cit* pp. 387-388) the present writer has found out that 30% are dolichoid and 70% are brachycephals, and on the average they are brachycephals. Again, Fidchenko has measured 48 Tajik skulls (*vide* Bogdanoff—"Notes Anthropométriques sur les indigènes du Turkestan" in *L'Anthropologie* vol. II. 1891) which on the average are brachycephal with 10% of "dolicho et sous-dolichocephales" (p. 75). Further, as regards the Darwazis, who are related to the Tajiks, Ujfalvy has measured 15 of them and pronounced them to be brachycephals (pp. 174-175.) Again, the Iranian-speaking tribes comprising the Sarikoli, the Faisabadi have been measured by Aurel Stein; and Joyce reports them to be brachycephals (*Jour. Ant h. Inst* BK. XVI p. 469).

Thus it can be said that in the historic period the people of Central Asia are predominantly brachycephals though an amount of dolichoid characteristics is to be found in them.

Lastly, we come to enquire about the nature of the prehistoric skulls found in Turkestan. Regarding these, Dixon says, Jvanovski (1890) has described a few crania dating, it is supposed, from the first or second century B.C. from the region near Issikkul in the western Tian-Shan, which are primarily brachycephalic. The only other material known to me is that obtained in the excavations at Anau (Pumpelly 1905) near Merv on the extreme south-eastern border. This is, however, so incomplete that no certain conclusions can be derived from it except that it is probable that dolichocephalic factors, if not dominant, were at least equal in importance with brachycephalic...Conservative computation would place them in the second or perhaps the third millenium B.C. ("Racial History of Man" pp. 329-330). But the measurments of Anau skulls were taken on the skulls of the infants from the oldest settlement and Sergi has pronounced them to be dolichocephalic of the Mediterranean type (Sergi in Pumpelly's "Exploration in Turkestan," Carnegie Publications No. 73).

From all these what we can glean is that in the prehistoric period a dolichocephalic element was present in Central Asia along with the brachycephalic one, and from the beginning of the historical period till to-day the brachcephalic type is the dominant factor there. Hence it is not possible to draw the

ancestry of the castes in question here from the mixed people of this region who invaded India from the 1st to the 6th centuries. A. D.

The other alternative left is to find Indian ancestry of these castes. It may be that due to the social disorder that followed after the break-up of the Gupta Empire, various castes and tribes formerly regarded as very low in the social order, rose and carved out kingdoms of their own during the period when they were noticed in history. Perhaps the invasions of the Sakas, the Yue-chis and the Hunas helped them to rise at the top. (The same may be said regarding some of the castes, viz the clerical Sakasena-Kāyasthas). And those clans which succeeded in establishing themselves as rulers arrogated to themselves the proud title of 'Kshatriya'. Hence the Pratihāras, the ruling class of the Gurjāras, became Rājputs while the main body of the Gurjāras or Gujars are regarded as low S'udras even to-day! And the Jāts have risen as "clean" S'udras, only in the Nineteenth century, as in the time of the Arab invasion (7th century, A.D) they were regarded as helots in the Indus valley (*vide* Kanungo's "History of the Jats" pp. 22-24). Also the revival of Brāhmaṇism helped to elevate these castes and tribes as they were used as weapons against Buddhism by the Brāhmāṇs. Such reclamation from the masses to a higher order is going on all the time in Hindu society. The Mahrāṭṭas are an example of it. Again, the Maurya emperors were S'udras, and the Guptas are said to be of untouchable S'udra origin. The Nagvams'i Bhāras'iyas are suspected to be of Central Indian

aboriginal origin. Regarding these castes, Mr. Venkatachar has succinctly summed up the prevailing historical opinion that—"The generally accepted historical view is that some of the renowned classes like the Parihāras, Solānkis, Chaubāns, and the Paramaras have a foreign origin...The aristocratic section amongst the foreigners became the ruling class while the others in course of time became the cultivating class like the Jāt or the Gujār...Some of the other clans to the east of the Chambal, like the Chandel, Bundela, Gaharwarde are supposed to have sprung from the Hinduized aboriginal elements" (*Census of India*, 1931, pt. b., Ethnographical Notes, p.64.) Here, we may say that if it be possible for the aboriginal elements to come up to the top as some historically important Rājput clans, then why is it not possible for the other classes of the same caste, and the Jāt and the Gujārs to arrogate to themselves importance under the aegis of the foreign rule and thus be mentioned along with the Sakas and the Hunas? The anahropometric measurements of these peoples do not betray foreign racial elements in them.

As regards the presence at Harappa of mesocephalic skulls with long cranial vault, medium nose and orbits and marked alveolar prognathism, the craniometric investigators pronounced them to be quite distinct in type from the other skulls (whether long-headed or broad-headed). It is said that it points to "the presence of a different race at the latter site." This view fits in with what the

strange mode of jar-burial at Harappa and the peculiar decoration of the jars themselves would naturally lead us to infer, viz, that after the eclipse of the Indus civilization, some new race of people must have established itself there⁹¹. But it seems, opinion is changing regarding the racial identity of the skulls. Dr. Guha in his ethnographical notes in the *Census Report* says, "The human skeletons found in these prehistoric sites fall therefore into two broad groups, namely, (a) the Chalcolithic and (b) Iron Age remains, excepting two whose precise ages are uncertain... This skull is dolicho-cranial...nose was high-pitched (Sir A. Keith, *J. A. S. of Bombay*, vol I., No. 6. pp. 663-672); the other skull is in "the general nature and consistency of the bones not unlike the bronze age human remains* of England." (A. Keith, *Ibid.*, p. 664).

(a) The human remains that have been definitely ascribed to the Chalcolithic time all belong to the Indus Valley civilization...Studies of the second collection of the Mahenjo-daro skull.. are... under publication...Majority of these remains belong to the dolicho-cranial class of which the greater proportion have a small but high-vaulted head with smooth forehead and narrow prominent nose;†...the living stature was moderate...The rest however are...with...lower cranial vault, promi-

⁹¹ Sir John Marshall-op.cit vol I. p. 109.

* These were of brachy cephalic types vide G. M. Morant in *Biometrika*, vol. 29. 1926; p 57.

† But this type cannot be the blond Nordic or Proto-Nordic types; the living stature is moderate.

nent supraorbital ridges and an enormous growth of the post-auricular part...This type occurs at Mekran (Skull B), the lower strata of Mahenjodaro, and also at Harappa where it is found in the open burial, and by one skeleton in the jar-burial of a later date. From the formation of its lower forehead, moderately broad nose and post-auricular development, Sewell and I provisionally classified it as Proto-australoid. The discovery of more remains of this type later on with a narrow high-pitched nose both at Mahenjodaro and Harappa and my examination in London of the ancient Sumerian skulls found at Al-u baid and Kish...as well as the Long Barrow English skulls, have convinced me that inspite of the prominence of the supra-orbital ridges the true affinities of this case are not 'Australoid' as we formerly supposed but 'Caucasic' to use Keith's not very happy expression (Keith, "Illustrated London News" Dec 19, 1931. p. 1002). Eickstedt's discovery in the present population of the Indus valley of "a coarse type with robust proportions, overhanging occiput and prominent superciliary ridges but lighter complexion seems" further to corroborate this view and its continued existence to-day."⁹²

Thus the skull which points to a different racial strain in Harappa turns out to be a "Caucasic" one. Also the type labelled as "Proto-australoid"⁹³ by Messrs Sewell and Guha in Mahen-

⁹² Sir I. Marshall. *op. cit.* II. p. 130.

⁹³ B. S. Guha. *Census of India 1931. Ethnographical.* pp. LXVIII-LXIX.

jo-daro remains, turns out also to be "Caucasic". Again the studies of the second collection of the Mahenjo-daro skull of dolicho-cranial class with high-vaulted head and narrow prominent nose and the discovery of "Caucasic" skulls similar to Long Burrow English skulls* at Harappa are

* That low retreating forehead does not signify an australoid or Proties-australoid racial strain is to be seen from the examination of the English skulls made by Beatrix G. E. Hooke who says, "All three series are remarkable for their retreating foreheads, the Faringdon street crania having lower vaults than the whitechapel, and in this respect they are further removed from the Long Burrow skulls to which Macdonellish traced resemblances in the series he investigated" "A Third study of the English skull" in *Biometrika* vol. XVIII. 1926.)

Again, G. M. Morant after examining the skulls of England and Scotland says, 'An entirely different' from the skulls is found in iron Age settlements. It is just dolichocephalic and above all characterized by its low Calvarial height." Then he says that the Anglosaxon skull type dealt by him "is clearly distinguished from that of the British Iron Age by its greater calvarial height." (A First study of the caniology *Biometrika* vol. XVIII. pp. 57.)

Again, the present writer has handled a skull in the laboratory of late Prof. von Luschan at Berlin which was long, with low forehead, bulging-out occiput and upper alveolar prognathis (the mandible was lacking.) Prof. von Luschan identified it as a Megalithic skull from in North Europe (The German anthropologists identify the Megalithic skulls as North European on the basis of a Mesolithic skull being found in North Europe. Much advanced his hypothesis of North European origin of the Aryans. But Letourneau had said that the builders of our megalith monuments came from the South and were related to the races of the North Africa (*Bull. de la Soc. d'Anth. de Paris*, april 1893). Elliot-Smith says, "The distribution of the megalith monuments and other stone buildings that have been assigned to the same (Achalcolithic) age bears ample witness both to the source and line of spread of what Montelius and Sergi call the western strain; but it diffused from Egypt not only towards the west, but also to the east, towards the Sinai Peninsula, where the stream bifurcated also to Persia and even India, the other north to Syria, Asia Minor and across to Mediterranean sea to South Russia." "(The Ancient Egyptians and their Influence upon the Civilization of Europe." p 176.) If the hypothesis of Elliot-Smith be correct, then we would not be surprised to see Megalith skulls discovered in Mesopotamia and in Mahenjo-daro and higher up.

going to revolutionise the ideas regarding the anthropological affinities of the men of the Indus Valley civilization.

Thus we see that with the publication of the second group of skulls discovered at Mahenjo-daro and further excavations of the people of the Indus Valley, more light will be thrown on the Anthropology of the people of the Indus Valley Civilization. At present, we will be content with saying, that there is no proof of the absence of the Indo-European-speaking people in the period of Harappa Culture and Indus Valley Civilization. The presence of diverse elements in the period of Indus Valley Civilization does not preclude the presence of Indo-European-speaking people in the same locality. The presence of the so-called Alpine skull does not negative the presence of the Indo-Europeans there. The theory which holds that the original Indo-Europeans were a blond, long-skulled narrow-nosed and tall people is a form of national-chauvinism known as "Germanism". The characteristic of the original Indo-Europeans are still matters of speculation. This speculation should not prejudice the Indo-Āryan question of India. As the Indo-European-speaking peoples are divided into various racial elements, and as from the paleolithic period of Europe we find these peoples of different biotypes, and in Central Asia, peoples of diverse elements are supposed to have lived from the period of Anau culture, it is not possible to expect a homogeneous racial element in the Vedic Āryans. Again, there is no basis to identify them with the blond element of

North-Europe or elsewhere. There is no trace of a blond people in the Vedas. Rather, the Vedas speak of the black-haired, golden-coloured people. The theory of the blond Vedic Āryans is a Pan-Germanistic myth. It is probable that they were of heterogeneous composition as the prehistoric and present-day anthropological data of the Punjab testify.

Again, if the absence of any long-shaped skull with narrow prominent nose has precluded the possibility of the presence of the Vedic Āryans, there is a chance that the recent discoveries will negative this objection from an anthropological stand-point.

Taking all these things into consideration, we do not see valid reasons for any anthropological objection to the hypothesis that the Indo-Āryans were a part of the Indus Valley Civilization, and that the Vedic Āryans were a part of the Harappa culture.

III.

Indus Valley And Vedic Funeral Customs Compared.

Now we come to the question of the mode of disposal of the dead. We have already mentioned about the burial (*an-agnidagdha*) and the urn-deposit (*agnidagdha*) system in the Vedic age. The custom of complete burial is indicated in the Rigveda (X, 18, 11) which can be properly called "burial". Thus, the oldest practice was burial, and then comes the cremation system with the burial of the ashes. But it is evident that both the practices are mentioned in the

Rig Veda, as it appears from such passages as, X. 15, 14 and X. 16, 10. Regarding this, we must consider the following facts: Indologists like Max Müller, Winternitz and others have found two layers of hymns in the Rig Veda itself. Max Muller divides the Rig Veda Samhitā into "Chhandas"-Period which was oldest in age and the "Mantra"-Period which was of later age.⁹⁴ Thus, according to him the Rig Vedic hymns have also ancient and modern periods.⁹⁵ Hence we should not wonder if two modes of disposal of the dead body be mentioned in the Rig Veda. But as the burial system is common to all primitive peoples, it may be said that the burial system is the oldest custom mentioned in the Rig Veda. Winteritz says that perhaps in the oldest period, the burial custom was common with the Indians like the other Indo-Germans.⁹⁶ The following hymn of the Rig Veda (X. 18. 10-13) says this clearly: "Go thither to mother, go thither to earth, the wide-stretched, broad, full of benediction...Open you Earth, do him nothing that he can suffer, recieve him friendlyly and with loving greetings. Wrap him, Earth, as the mother wraps the son in her garment...I throw around you the Earth. May I not wound you; in it I lay the stone plate. The fathers may protect these pillars firmly, and Yama prepare seats there for you."

⁹⁴, ⁹⁵ F. Max Muller—"A History of Ancient Sanskrit literature" pp. 457. 483.

⁹⁶ M. Winternitz—"Geschichte der indischen Literature"—p. 84.

On the other hand, the cremation system is clearly to be discovered in the following Hymn (X-16-1-6) which Winternitz thinks is of later age. "Do not burn him, do not scorch him, O Agni, do not cut into pieces the skin and his limbs. When you have cooked him completely, O Jāta-vedas, may you send him there to our fathers... To Sun go thy eyes, to Wind the soul. As it is convenient to you, go to heaven, go to earth, go to the waters, when it is agreeable to you; the limbs of the body rest with the planets. The eternal portion would warm it with thy warmth, would warm it with lustre, with thy flames; O God of Fires, accept the friendly figure, and carry it gently thither to the world of the pious."

Thus the former Hymn is clearly a hymn of burial and the latter of cremation. But both cannot be taken as belonging to the same age, simply because both are mentioned in the Rig Veda Samhitā. We have already seen that the Indologists differentiate the hymns of the Rig Veda Samhitā as composed in older and later ages. Hence in two different ages we find two separate modes of disposal of the dead. Among these two different customs the burial system was certainly the older as it died out in subsequent ages. In the Sutra period, as we have seen before, the custom of urn-burial was in vogue. And this Sutra period is accepted as of post-Vedic age when the writing of the Vedas had been completed; and the Sutras record the manners and customs of the Vedic people. The Grihya Sutras,

according to Winternitz, contain the most reliable information (he says, we can say, eye witnesses) of the daily life of the ancient Indians.⁹⁷ He further says, that that these Sutras are priceless sources of the study of the manners and customs of the ancient Indians by the ethnologists. Already the scholars* have discovered that the Grihya-sutras described customs which have parallels with the customs and manners of the other Indo-European peoples.⁹⁸ And in one of these Grihya-Sutras we have already seen that the urn-burial ceremony has been described in detail. The Asvālayana-Grihya-Sutra minutely describes the urn-burial ceremony, as we have seen before.

It says (*kandika* 4.1) "He gives order 'Light the fires together'. After he has recited [the verse] 'Those living ones have separated from the dead' (RV x. 18, 3) they turn round from right to left and go away without looking back" (4.9). Again, it says (5.1), "The gathering [of the bones is performed] after the tenth [Tithi† from the death]... "A man into a male urn without special marks, a woman into a female urn without special marks"; (5.2)...with the thumb and the fourth finger they should put each single bone [into the

* Vide—J. V. Schroeder—"Die Hochzeitsgebräuche der Esten und einiger anderer finisch-ugrischer Völkerschaften in Vergleichung mit denen der indo-germanischen Völker" Winternitz—"Das altindische Hochzeitsrituell nachdem Apastambiya-Grhysutra—Mit Vergleichung der Hochzeitsgebräuche beider übrigen indogermanischen Völker.

⁹⁷, ⁹⁸ M. Winternitz—op. cit. pp. 235; 235.

† Zodiac time.

urn] without making a noise" (5.5)." The feet first, the head last" (5.6). Having well gathered them and purified them with a winnowing basket, they should put [the urn] into a pit" (5.7). Then "with the following [verse] he should throw earth [into the pit]" (5.9). After it, comes the verse "Having covered [the urn] with a lid [with the verse] 'I fasten to thee'* (RV.x, 18.13), they should go away without looking back, should bathe in water, and perform a S'rādha for the deceased" (5.10).

Here, we see that the bones of the cremated body used to be gathered in an urn, which again used to be buried in a pit. Thus we are assured that in the latter part of the Vedic age, urn-burial custom was in vogue. But the question that turns up is, whether the ashes of the bones were deposited in the urn or the charred skeleton itself used to be put in it? The Asvalāyana-Grihaya-Sutra speaks of the gathering of the bones, and it further speaks of the gathering of "each single bone" with "feet first, the head last." This description cannot fit in with the description of complete burning of the dead body into cinders or ashes as it is in vogue now. The verses do certainly indicate partial cremation in which, after the burning of the soft parts of the body, the skeletal remains are gathered and put into an urn and this is again buried underground.

Thus we see that in the early Vedic age,

* According to Oldenberg, it is possible that this verse has also been put in the cremation rites. Vido, "*Religion des Veda*" p. 571.

burial of the dead body used to take place. The *Satapatha Brāhmaṇa* written in the period next to that of the *Saṃhita* period of the Vedic age, clearly indicates the burial custom. It speaks of the size of a grave and the building of a sepulchral mound over it. Then, in the later age, the *Grihya-Sūtra* describes the urn-burial custom. On these accounts, we should take the burial custom to have been the oldest one, and this was replaced by the *urn-burial custom*. This custom extended from the later part of the Vedic age to post-Vedic age. Here we should remember the historical news recorded in the Buddhist books that Buddha's ashes or charred bones were put into urns and buried in different parts of the country. Again, in this connection we should remember the custom of burying the bone-relics of the Buddhist priests and erecting mounds known as *Stupas* over them.

Again, it is evident that the urn-burial custom has been replaced by the *complete cremation system* that is in vogue to-day. Now-a-days, the ashes along with any unburnt portion is thrown into the Ganges.¶ Of course, it must be said, that the custom of burial has not completely died out amongst the Hindus. Along with the universal custom of cremation, religion sanctions the burial of children and ascetics.* Some of the

¶ Lately, the custom of collecting the ashes in an urn and then putting it in a pit and erecting cenotaphs over it, is coming into vogue. But that is for a few and well-known persons.

* Winternitz says that at that time when cremation custom became general, children and ascetics were buried. (p 857). This custom still holds good though not practised in the cities. But it is the orthodox rule.

sects like the Nath and the Vaishnava practise burial of the dead body.** But these are extraneous to the general evolution of the disposal of the dead body which run the following course; complete burial, urn burial, and complete cremation of present day. Here, we should remember that some of the rites in connection with the funeral ceremony which were in vogue in Vedic days are still being practised by the Hindus. Hence, it is clear that there has been no break in the evolution of the funeral customs of the Hindus.

Now, we turn to the funeral customs of the people of the Indus Valley civilization as reported by Sir John Marshall. He says, "How did the Indus people dispose of their dead?—At Mahenjo-daro the evidence is as yet too meagre and in some respects obscure. At Harappa it is more abundant, but most of it relates to the latest period of occupation, when Mahenjo-daro had probably ceased to exist and when the population at Harappa itself may have already undergone great racial changes. This evidence may be conveniently discussed under the following heads, namely, 1. Complete burials, 2. Fractional burials. 3. Post-cremation burials."⁹⁹

I. *Complete Burials*:—Here he describes the various groups of skeletons of men, women and children discovered at Mahenjo daro¹⁰⁰. Of these 14 were found in a room. These according to the anthropological

** In Bengal, this practise is giving place to cremation amongst these sects.

^{99, 101} Sir J. Marshall—*op. cit.*, vol. I. 79-81.

investigators "represent three distinct racial types, viz., Proto-Australoids, Mediterreanians and Alpines" And Marshall says, "In face of the above facts there is no reason whatever for doubting that these burials date from the declining years of Mahenjo-daro's prosperity...The above constitute the only pre-historic examples of complete inhumation found at Mahenjo-daro".¹⁰¹

Again, at Harappa, "several examples of this mode of sepulchre, which are unquestionably orthodox, have been exposed in the lower stratum of cemetery H...From the designs..it may be inferred that these burials are somewhat later than the Indus period as represented at Mahenjo-daro. It should be added that in one case (H307a) the skeletal remains are fragmentary, and it is questionable whether the body was buried entire or in a fractional state."¹⁰²

Further, "the same method of complete burial is also well illustrated at two sites in Baluchistan, namely at *Nal*...and at *Shahi-tump* to the S. W. At the former site, the skeletons were provided with definite graves, others were laid in the bare earth."¹⁰³

"Also, complete and fractional burials are found side by side at *Musyān* in western Persia, and are seemingly contemporary, but in that area fractional burials appear to be the exception rather than the rule, whereas at *Nal* it is just the reverse."¹⁰⁴

2. Fractional Burials

(a) "Of this type of burial, in which only a

^{102,103} Sir John Marshall—*op. cit.*, p. 81-85.

fraction of the bones was collected and buried after the body had been exposed to the beasts and birds, the best example at *Mahenjo-daro* is that in Courtyard 13 of House III...In this case the skull was found in a broken earthenware pot and near by it some fragmentary pieces of bones accompanied by a large number of other earthenware vessels and a variety of small objects. The objects comprised in the burial belong to the Chalcolithic Age, but are not sufficiently distinctive to help us in determining the date of the deposit more precisely."¹⁰⁵

(b) "At *Harappa* more than one hundred examples of fractional burials have been exposed, but of these only one is contemporary with the Indus remains of *Mohenjo-daro*...All the other fractional burials at *Harappa* occur in the upper stratum of cemetery H, and are demonstrably later than the complete burials described above in that the remains of the dead are invariably deposited in earthen jars...The human remains ordinarily consist of one skull, but occasionally of two or more skulls, in a single jar. In some jars, there is nothing more than a few bones and in others no bones at all—a phenomenon that quite accords with what we have already observed in regard to the fractional burials at *Mahenjo-daro* and *Shahi-tump*."¹⁰⁶

(3) *Post-cremation Burials.*

"At both *Mahenjo-daro* and *Harappa* a class of large wide-mouthed urns has been brought to light, containing a number of smaller vases, bones

of small quadrupeds, birds, or fish and frequently a variety of other small objects such as beads, bangles, terra-cotta figurines and chert flakes, sometimes mingled with ashes and charcoal"¹⁰⁷ Again, he says, "Here (Mahenjo-daro) too, mention should be made of a collection of charred human bones, including pieces of a skull and finger-joints which were found in the small subterranean chamber... along with a number of goblets, dishes¹ and other vessels—the whole mingled with ashes and charcoal."¹⁰⁸

As for an explanation to this, he says, "Now in cases when charred human bones and ashes are found accompanied by a number of vessels and objects there can be no question that we are in the presence of *post-cremation* burials, and that, as in many of the fractional burials described above, the vessels contained offerings of food and drink intended for the use of the departed in their after-life. But it is only rarely that human bones are found in this class of urns...I think there can be only one answer...the absence of such bones does not, in effect, present any real difficulty, for it is still a practice in the Punjab to take the remains of the bones from the funeral pyre, pound them to dust, and then commit them to the river. Some such practice may well have obtained among the Indus people...or else they may have thrown the ashes into the river and buried only an urnful of offerings in the house of the dead."¹⁰⁹

This system of burial has also been discovered

^{107, 110} Sir John Marshall—*op. cit.*, pp. 87-89.

outside the Indus valley as well, "of such urns a large number were found by Sir Aurel Stein in both northern and southern Baluchistan."¹¹⁰

In conclusion Marshall says, "So far as our evidence goes at present, it seems probable that the most usual method of disposing of the dead during the flourishing period of the Indus valley civilization was by cremation. That cremation was practised is conclusively proved.. by the finding of cinerary urns or other receptacles containing calcined human bones and ashes together with vessels of burnt or other offerings for the dead and sundry articles for use in after life... The conclusions arrived at in regard to these cinerary and cenotaphic urns are amply confirmed by Sir A. Stein's discovery of similar urns at various sites in Beluchistan."¹¹¹

Continuing he says, "The practice of exposing the dead to wild animals and then burying the remains (if any) of the excarnated bones seems to have been rare up to the conclusion of the Indus [Valley] period as represented at Mahenjo-daro and Harappa... On the other hand, there is a big group of fractional jar-burials at Harappa, evidently belonging to a later age, in which the excarnated bones were placed in urns... Equally rare, if not rarer, are the examples of complete burials. Indeed, if we eliminate the remarkable series of skeletons at Mahenjo-daro which can hardly be taken to represent the ordinary orthodox burials of the day, the only examples are those in the lower stratum

^{111.112} Sir John Marshall. vol. I. *op. cit.*, pp. 89-90.

of cemetery H. at Harappa, which their pottery proves to be later than the Indus Valley period with which we are dealing."¹¹²

Finally, he says that, "In the light of these facts it is not natural to suspect that the few examples of fractional burials that appear at Mahenjo-daro and at Harappa during the Indus period are due to the presence of the foreign elements from the west in the population of the cities, and that the increasing numbers of complete and fractional burials which are found at Harappa in the post-Vedic period may result from the extended immigration from the some quarter which coincided with the decline in power of the Indus people."¹¹³

Thus we see that the cyclic order of the funeral customs of Indus valley culture was similar with that which the Indo-Āryans followed from the early Rig-Vedic period to the post-Vedic period of the Grihya-sutras. The similarity cannot fail to attract the attention of the investigator.

Now, let us compare the customs of the Indus Valley culture and those of the Vedic Age. According to Marshall, the cases of complete inhumation discovered at Mahenjo-daro are dubious, and he thinks that these burials date from the declining years of Mahenjo-daro's prosperity. As regards those discovered at Harappa "which are unquestionably orthodox," they have been exposed in the lower stratum of cemetery H.* Again,

* The excavator Mr. Vats assigns to it an earlier date than that fixed by Marshall (vide Marshall, Vol. I, p. 84.)

complete burials have been illustrated at Nal and at Shahi-tump in south-western Baluchistan.

Thus, in whatever form and in whatever period the inhumations might have taken place in the ancient regions of India known as the 'Land of five rivers (Pañchanada) and Sindh, and called by the Arab historians as the land of 'Hind and Sind,' we find the same custom to be the earliest mode. And it is the regions in which the Indo-European languages are spoken. The inclusion of Nal and Shahi-tump do not bring in foreign influence in this area of Indo-Āryandom, because the region known as Baluchistan in modern times had been ethnically and culturally an integral part of the Indian Provinces of Sindh (Sindhu), in the Hindu period of India's history.

The oldest people of this region seem to be the Brahuīs who speak a Dravidian form of language.¹¹⁴ Then come the people of the alluvial plains of Las Bela, viz: the Chhutṭa, the Sangur, the Bandija who are regarded as autochthones of Baluchistan and are of Indian origin. According to Grierson, their language, Lasi, is a dialect of Sindhi. Further, these tribes claim Hindu Rajput descent. Then come the Jāṭs, another of the autochthonous elements. The Jāṭs extend from the Panjāb to the western part of Baluchistan. In the Middle Ages, the Arab chronicler Masudi spoke of the

¹¹⁴ Caldwell—"A Comparative Grammar of the Dravidian or South-Indian family of language"; Lassen—"Untersuch. Über die ethnographische Stellung der völker im westen Indiens" in der Z. S. K. M. B.; Bd. V. pp. 377-409; Sten Konow—"Linguistic Survey of India" Bd. IV, p. 27.

Jāts (Zat) living in Kerman (Eastern Persia).¹¹⁵

Then come the Afghans, who live in the northern part. They are an Indo-European-speaking people who are regarded as belonging to the Indo-Afghan racial element. Finally, come some Iranian-speaking tribes like the Dewars, and the Baloches, who are regarded by the historians¹¹⁶ as the latest immigrants in this region. Along with the Iranian-speaking tribes, Risley reckoned the Meds who now-a-days speak a Mekran-Iranian dialect. But long ago, the Arab geographers¹¹⁷ have mentioned the Meds along with the Jāts as one of the oldest inhabitants of this region. Again, the Smritis speak of an untouchable Hindu caste of the name of Madaorllida (Yama 54). Manu says that the 'Meds' should dwell outside the village (10. 36). It seems that these Meds are the Mada or Med of the Brāhmanical scriptures, though their connection with the *Mers*, an untouchable tribe living in the hills of Rajputana, may not be clear. We are told by the Arab historians that during the Arab invasion of Sindh by Mahammad Bin Kasem, it was the Meds and the Jāts who welcomed the Arabs with demonstrations at Multan because they said they were oppressed by the former Brāhman rulers of the land.¹¹⁸

¹¹⁵ Masudi-French translation—vol III. p. 254.

¹¹⁶ M. L. Dames—"A Historical and Ethnological Sketch on the Baloch Race. pp. 33-44.

¹¹⁷ "Vide "Arab History Muja-wal-tawarikh."

¹¹⁸ Vide, Elliot, "History of India" and Lane-poole—"History of Mediae-Val India."

The political geography of Sindh has changed with ages. History tells us that once the region now-a-days called Baluchistan belonged to Sindh, ethnically and politically. During Alexander's return to Persia through the Gedrosian desert, the Greek observers fixed the present-day Porali river as the western-most boundary¹¹⁹ of the dwellings of the Indian people. Before Alexander, perhaps Mekran formed a part of the Achamae-nide Empire of Persia.¹²⁰

Then during the time of the Arab invasion of Kasem, the kingdom of Sindh extended up to the Persian border at Kerman.¹²¹ And students of history know that the Arab historians called Afganistan and Baluchistan as the land of "Sindh" and the land stretching east of the Indus river as "Hind." So then, the "Land of the Hind and Sind" comprised the country inhabited by the Indians.

Thus, it is a region of Indo-Āryan influence, and we should not be surprised if we find Indo-Āryan customs discovered in this area. For, this reason, we should not be surprised in finding complete and fractional burials at Nal and Shahitump.

We have already found that the custom of complete burial in this region may not be incompatible with the Vedic one.

Next we come to the question of fractional

¹¹⁹ Vide V. Smith. "*Ancient History of India*" 3rd Edition.

¹²⁰ Vide Behistan Inscription "*Ency. d. Islams.*"

¹²¹ "*Chach-Nama*"—translated by Gidumal; also, Elliot's *History of India* dealing with the Arab conquest.

burials, the description of which we have read already.

Regarding this fractional or partial burial of the bones or skeletons in jars we have already seen that the *Asvālayana-Grihya-Sutra* speaks of the gathering of the bones and perhaps of the skeletal remains in an urn in order to be buried underground. Hence, the fractional burials in earthen jars are the urn-burials practised in the latter part of the Vedic age and after it. § There cannot be any mistake about this mode of burial as it is also evinced by the discovery at Lauriya by Dr. Bloch, where the discovery of the figure presumably of the Mother-goddess (*Prithvi*)* on a gold-leaf along with the conical shape of the mound with an wooden post in the centre made the excavator come to the conclusion that it belonged to the pre-Mauryan epoch.¹²²

Thus the mode of jar-burial of the Age of the Indus Valley culture agrees with the Vedic and

§ The *Agni Purana* speaks of gathering of the bones on the fourth, fifth, seventh and ninth days according to the varna of the deceased (ch. 158. 18). This gathering of the bones would presuppose an urn-burial. Again, it says, It is forbidden to burn a naked corpse. Without burning [the whole corpse] completely into ashes, a part must be left out (ch. 158. 50). Here, partial cremation is clearly hinted at. According to Winternetz the Puranas received their present form after 600 A. D. (Vol. I p. 445). Hence, it is probable that the custom of partial cremation lingered on even in such late age.

* The word "*Prithivi*" mentioned in *Rig Veda*—burial hymn (10-16) is meant for earth and not for a goddess.

¹²² T. Bloch, *Excavation at Lauriya, Nandangarh—Ann-Report. Arch. Survey of India for 1906 pp. 123-126.*

post-Vedic urn-burial custom. Again, the Reporter of the Indus Valley Civilization speaks of the frequency of the fractional burials at Harappa. of which one is only contemporary with the Indus remains at Mahenjo-daro and all others are demonstrably of later age than the complete burials. This is again in consonance with the evolution of Vedic customs of disposal of the dead. If the complete burials have been discovered in the lower stratum, they signify the more ancient mode of disposal of the dead.

Further, it is clear that the custom of fractional burial when introduced at Harappa was of comparatively later age than the time when complete burial system was in vogue. This again is in consonance with the Indo-Āryan custom of cremation replacing in later age the mode of complete burial. Again, if one example of fractional burial has been discovered at Mahenjo-daro, many have been unearthed at Nal. But Marshall says that the origin and age of the Nal culture are still problemetical, and he thinks it was connected with the early Persian than with the Indian one. But we do not see any ground for suspecting a foreign influence in it, as this region has been a part of Indo-Āryan India. Marshall speaks of complete and fractional burials to have been found side by side at Musyan in western Persia. This leads him to suspect foreign influence in Nal. But we have seen that urn-burials have been discovered in regions beyond India and Persia as well. Moreover, the Indo-Iranians in their undivided period of existence must have followed the same custom

of burial, and after their separation might have followed the same evolution of the customs of disposing of the dead till the reformed religion of Zoroaster separated the customs completely. Thus common fashion might lead the identities of the modes of complete and fractional burials discovered at Musyān. Again, the comparative prevalence of fractional burial at Nal lends more colour to its Indo-Āryan affinity.

Finally, we come to the mode of Post-cremation burial of the Indus Valley civilization. We read in the Vedic literature that similar modes of disposing of the dead were developed by the Indo-Āryans in the latter part of the Vedic age and in the post-Vedic age. We have already said that post-cremation burial of the ashes and particles of bones and raising of cenotaphs over them was the mode in post-Vedic age and it still finds favour in present-day India.* The Buddhists elaborately developed the Vedic mode of raising an earthen mound over the urn-burial into a magnificent architectural *stupa* of solid masonry, within which the bone-relics or ashes of the saints were buried.† Thus, again we see, that the latter-day

* In modern India the cenotaphs built over the ashes of Shivaji and Ranjit Singh, of Kesub Chandra Sen and RamaKrishna Paramahansa, the tombs of the religious heads called Mohunts are examples of it.

† In Saravanga Jataka (522) it is described that the corpse of Mandgalayana was burned in the presence of Buddha. In the *Maha-Parimibban Sutta* (The Book of the great decease). The burial of the bones and ashes of Buddha and raising of Chaitya as over them are described. Also, in "Mahakapi-Jataka" in which the previous birth of Buddha as a king of the monkeys is described, raising of Chaitya over the bone-relics is mentioned; on the other hand, the "Kachani-Jataka" speaks of "Amokasmasana" (*lit.* raw sepulchre or sepulchral ground) where the corpses are left and not buried. Perhaps this was the custom for the poor people.

Indo-Āryan funeral customs agree with the post-cremation burial system of the Indus Valley culture. In this wise we see that the cycle of the evolution of funeral customs of the Indus Valley Civilization agrees with the cycle of the funeral customs evolved by the Indo-Āryans. Of course, in the Vedic literature we do not find any detailed records of the things deposited in the urns or of things deposited along with the urns. What we have seen already in the Vedic Literature is that only the modes of disposing of the dead and the funeral rites are mentioned. But from what we have already investigated we see, that there is an agreement between the funeral customs of the Indus Valley civilization and those of the Indo-Āryans. And both of them are found in the same regions of India. This brings us to the next question about the ages of the Indus Valley people as well as that of the Vedic people.

IV. **Two Cultures Compared.**

Regarding the age of the authors of the Indus Valley civilization, Marshall says, "that the culture represented must have had a long antecedent history on the soil of India, taking us back to an age that at present can only be dimly surmised."¹²³ As regards the date of this civilization, he says, "The remains at Mahenjo-daro may not carry us later than the first quarter of the third millenium B.C."¹²⁴ It is a date which according to Marshall and those who think like him, is far anterior to the

¹²³⁻¹²⁴ Marshall-*op cit*—vol. I. pp.106, 112, 122, 93, 107.

date of the arrival of the Indo-Europeans in India, because according to Marshall the date of the arrival of the same people in India is about middle of the second millenium B.C.¹²⁵ And this is the period when according to him decadence has set in the Indus Valley civilization. Marshall has contrasted the material civilization of the Indus Valley people with that of the Indo-Āryans as recorded in the Vedas and he finds that the two groups of people are not identical. He finds great diversities in the civilizations of the two.

As regards the diversities of the civilizations in question, Marshall says, "So far as Sind is concerned there is ample and convincing proof that the whole country from north to south was permeated in the chalcolithic age by the long protracted civilization which we have unveiled at Mahenjo-daro and Harppa. In the Punjab the evidence is more meagre. To the north-east we have found traces of this culture as far as Rupar on the Sutlej below the Simla Hills.¹²⁶ Thus, he places the Indus Valley culture in the chalcolithic age which he further emphasizes by saying that "with one exception all the skeletons probably belong to the Chalcolithic (Late I or II) Period."¹²⁷ On the other hand, the Vedic Āryans, according to him, were "a partly pastoral and partly agricultural people who have not yet emerged from the village state...The metals which the Indo-Āryans used in the time of the Rig Veda were gold and copper or bronze; but a little later, in the time of the Yajurveda and Atharvaveda, these metals are supplemented by silver and iron. Among the Indus people silver is commoner than gold, and utensils and vessels are sometimes

made of stone—a relic of the Neolithic Age—as well as of copper and bronze. Of iron there is no vestige.”¹²⁸ Finally, he contrasts the two civilizations by saying that, “If the Vedic culture antedates the Indus, how comes it that iron and defensive armour and house which are characteristic of the former, are unknown to the latter?...It is impossible to discover for them a common source.”¹²⁹

Now, let us find the stage of culture of the Indo-Europeans when they emerged in history. Gordon Childe's Nordics of South Russia were in a chalcolithic phase of culture ;¹³⁰ Again Myres, Haddon and Peake call the “neolithic” people of the Russian Steppes as “Aryans.”¹³¹ Further, as Gordon Childe says, “Not only does a regular food-producing economy stamp the Aryans as *Neolithic*, but they had gone futher and were acquainted with at least one metal. Copper is represented by two terms *ayas* and *youdhos* ..Feist believes that gold and silver were also known in the primeval period...On the one hand, there is no Indo-European terminology, for metallurgy ; on the other, the names of certain artifacts are proper to a period when stone was still used for tools and weapons...Thus the Aryans were still in a stage of transition from the use of stone to that of metal, what archaeologists call the *chalcolithic* phase, at the time of their separation.”¹³²

Thus we hear that the Indo-Europeans at the time of their separation were in the chalcolithic stage of civilization. Naturally we will find the Indo-Aryans

^{128,129} Marshall—*op cit*—vol I. pp. 122, 122.

^{130,132} V. Gordon Childe—*op cit*. pp. 185, 186, 85.

to be in the same stage at the time of their arrival to India after their separation from the parent stock.

But we find the people of the so-called 'Indus Valley civilization' to have been in the chalcolithic stage of culture as described by Marshall.¹³³ And the same investigator denies any connection between the so-called Indus Valley people and the Vedic Āryans. Hence, it behoves us to enquire into the condition of the latter people as depicted in Vedic literature.

The Indologists say that the Rig Veda is the oldest part of Vedic literature, and it contains the oldest part of Indian literature. Winternitz says that the, Rigveda is by no means completely explained.¹³⁴ There are many hymns and a great many verses and places in the Rigveda the real significance of which is highly doubtful. The antiquity of the Rig-Veda being acknowledged by the investigators, some see in the Hymns the expression of the spiritual life of the Indo-European people* and not of the Indians. Hence they say that the epoch of those Hymns stand very near to the Indo-European primitive period (ur Zeit). On the other hand, there are many investigators who say that the Rigveda is the product of the Indian spirit.¹³⁵

This being the position of the Rigveda in determining the age of the Indo-Āryans, let us enquire into some of the ethnological evidences to be discovered in the Rigveda. One of the

^{133, 137} Winternitz pp. 52, 61 ; 61.

* Weber says, "the mythological relations, represented in the older hymns of the Rik, in part carry us back to the primitive Indo-Germanic time"—"*The History of Indian Literature*" pp. 35.

Hymns (9.112.2) says thus: "See, the Smith (Karmakār) prepares arrow with the help of dried branches of the tree, feathers of birds and shining stone for sharpening; then he enquires of a rich man to sell this arrow. Hence Soma flow for Indra". Here, we find that the arrows were made of stones, hence the implement of the stone age was still lingering when this Hymn was composed. Again, the Vedic people used utensils for eating and drinking purposes made of wood (1.175.3.10.101.10). Thus, it is clear that iron was unknown in this age. The meaning of the word "Ayas" is debatable. Zimmer takes it as bronze.¹³⁶ Later *Syamayas* (Swarthy *ayas*) came to mean iron.

In the Atharva Veda, the sense of '*ayas*' as iron is clear (VI-75 15). In this way, we see that implements of stone, wood and copper or bronze are mentioned in the Rigveda. From these, it is clear that they were not in either the Iron or the chalcolithic stage of civilization. Again, *Taitirīa-Brahmana* text which was a product of the later age, spoke of the use of a copper razor (1.5) for shaving the head of a Brāhmaṇa. That means, that even in the Brāhmaṇa period of the Vedic Age, the Indo-Āryans had not completely entered the Iron Age. Thus there is, again, a coincidence between both the groups.

(To be Continued.)

MISCELLANEOUS CONTRIBUTIONS.

I. KUTTICHATHAN, CONFESSIONS OF SUFFERER.

Malabar is the land of magic and sorcery and has a hierarchy of evil spirits. There are benevolent and malevolent spirits, and Kuttichathan would come under the latter category. He is supposed to be the most mischivous imp of Malabar demonology and is said to be as black as night and about the size of a twelve-year-old boy. There are still men versed in the black art who think that he can be flung at any body to gain certain ends. He oppresses and harasses but never injures any body. It is now my desire to record my confessions.

It was about the middle of September, 1931 that affairs of State took me off from Aryancavu, where I left my family. After 3 or 4 days it so happened that the Office-key which was hung up on a nail in the portico was found missing in the morning. Search was of no avail. A fresh key was again made the same day, and hung as usual on the same nail, to be found lost the next morning. Thus four keys were successively made, to be found lost the next morning. This aroused the suspicion of Mrs. K. who experimented on a useless key, which was hung up on the same nail. After a few hours it was found missing. The hand of an unseen agency was suspected. The next evening the Bungalow was under the watch and ward of 4 watchers and a Police

Constable. Two keys were suspended on the same nail in their presence. When they were in an unguarded moment, the keys were found missing in the twinkling of an eye. Every one got panicky, and no one slept till daybreak.

The next morning, there was a great flutter in the household, as Miss K. found that her gold chain was missing from her neck. The servants were at their wits' end as to what to do. A diligent search was made, and the sweeper found it safely stowed underneath a lime plant covered with dry leaves. It was observed that things were getting out of hand, and it was decided that the master of the house should be written to. Mrs. K. opened the box for taking the fountain-pen to write a few lines, but, alas, the pen was missing. The whole house was in consternation, and Mrs. K. decided to leave the place and went home.

Early next October, we returned to Shencottah first. It is 10 miles to the east of Aryancavu. I was in communication with some experts in the black art. Be it said to be credit of the unseen power that he has a high sense of rectitude. So long as we were away from the sphere of our work, he refrained from doing any mischief. The moment we came over to Shencottah, his mischievous pranks again began. The gold chain of Miss K. was again missing, but it was recovered from underneath a box. Cloth suspended on ropes for drying were missing, but they were found stowed underneath the wall. The children were playing one morning, holding the hems of a handkerchief, and

it disappeared in no time. I was one day going to my Office, when my fountain pen was missing. There are several other anecdotes which would fill a volume. As I said above, he had a certain sense of honesty in all his actions, as most of the things were recovered.

Meanwhile, experts in black art arrived, and, when we were discussing the matter, the walking stick of one expert was found missing. He sought for its return and it was found underneath a cot. They gave me their prescriptions for exorcising the evil spirit. These consisted of wearing armlets by every member of the household and the performance of ablutions in fire. We agreed. The day was fixed, and we moved on to Aryancavu. The experts arrived, and they began their work of exorcising the evil spirit by incantations and ablutions in fire. This continued for 5 days, but the pin pricks of the unseen band continued. Particularly, he wreaked his vengeance on my servant whose umbrella and clothing he tore into shreds. In spite of the work of the magicians, his mischief showed no signs of abating. A Nayar exorcist came and he informed us that we have incurred the wrath of Sastha (a Sylvan deity) and his satellite, Karuppuswamy. If they are appeased by offering two fowls and arrack, the mischief will cease. His request was granted. As a result of his intercession, prayers and offerings, the unseen being was not in evidence for 18 days, after which he again reappeared.

He would remove my watch, fountain pen, ink-bottle, bunch of keys, and others, but they would

be recovered from the compound the same day. The Nayar exorcist was again sent for. He divined that we had incurred the wrath of Karuppuswamy who should be appeased with offerings. Karuppuswamy is installed at Kottavathukkal, one of the gateways of Travancore. There he remains as the 'watch dog of Travancore.' He accepted the offerings, and the trouble ceased, but again reappeared. After 10 days, he began to renew his former attention. I was then informed of one Abdul Jabbar, a Muhammadan exorcist of Quilon, an adept in the art. A man was sent to fetch him. He sent word that it was not necessary that he should go to Aryancavu. He assured that, if his written prescriptions were adhered to for three days, the trouble will cease and we will be happy. It was desired that the paper should be folded and sent back to him by post on the fourth day.

The purport of his prescriptions is, "I am of opinion that this trouble at Aryancavu is due to a hierarchy of evil spirits whose wrath the occupants of the Bungalow have incurred. I order you all to leave the locality. May the inmates of the Bungalow live in peace."

The instructions were that this should be read for three days in the morning in the presence of all those about me, and that, on the third day, a small quantity of frankincense should be put in the paper which should be folded and sent to him by post in a cover. The instructions were carried out for three days to the very letter, and I am

glad to say that the mischief ceased and we continued to live in peace and happiness.

With all his mischievous, pranks Kuttichathan does no serious harm. He has a sense of honesty in all his actions and keeps diligent watch over the property he has removed, until it is picked up by the owner.

L. A. Krishna Iyer, M. A.

INDIAN ETHNOLOGY IN CURRENT PERIODICAL LITERATURE.

In *Man* for November, 1936, Mr. A. Aiyappan contributes an interesting article on "*Blood groups of the Pre-Dravidians of the Wynad Plateau India*." As a result of "blood-typing," by the open-slide method, of two hundred and fifty Pre-Dravidian Panyans and comparison of the data thus obtained with Australian data, Mr. Aiyappan finds that the Panyans bear no close resemblance to the Australian aborigines, but that both agree in having an extremely small percentage of B. group; but the Paniyans differ from the Australian Blacks in having a much lower percentage of O. (20 against 57 of the latter) which according to the hypothesis of Synder, Bernstein and Gates, is the most primitive group, A. and B. having arisen as subsequent mutations. "Blood-group data support physical anthropology in distinguishing the Pre-Dravidians from the higher case Hindus."

In *Anthropos* for May-Aug., 1936, Dr. Biren Bonnerjea concludes his "*Contribution to Garo Linguistics and Ethnology*."

In *Anthropos* for Sept.-Dec., 1936, Messrs C. Von Furer-Hairmendorf and J. P. Mills contribute an article on "*The Sacred Founder's Kin among the Eastern Angami Nagas*." The representative of the original founder of an Angami village is called the *Fevo*. Though no temporal authority is vested in him by the Eastern Angamis, his

socio-religions importance is very great. "He is the mediator between the community and the supernatural world, the personification of the village in its relation to the magical forces pervading Nature and human life, and, more concretely, the village's 'virtue.' Any thing affecting him affects the whole community. When the original founder died his place was taken by one of his near male relatives, upon whom devolved the duty of eating first at Feasts of Merit, of observing certain tabus essential to the welfare of the village, and so on. With these duties went some few privileges eg., he is given special help when he rebuilds his house, and when any game is killed the middle of the stomach is divided between the Tevo, the First Souer, the First Reaper, and the Chekru, the first getting the biggest share."

In the *Journal of the Royal Asiatic Society of Bengal*, Vol II, 1936, no. 1, Mr. N. I. Bor gives an account of "*The Dafas and their Oaths.*" In Vol II, 1936, no. 2, of the same Journal, Mr. S. Varma contributes an article on "*The Phonetic of Lahnda.*"

The *Journal of the Anthropological Society of Bombay*, for the year 1933-34 (published in 1936) contains 20 papers, out of which as many as 13 papers on Indian Folk-lore and Folk-customs are contributed by Mr. S. C. Mitra, and 5 papers of anthropological interest including his Presidential Address on "*The Importance of Gotra among the Hindus,*" Mr. K. A. Padhye the remaining two articles being one on "*Social Anthropology as a Constructive Science*" by Dr. Theodore Altmann,

and the other on "*Notes of Anthropological interest*" by Mr. S. N. Roy.

The same Journal for the year 1935-36 contains 11 articles of which 6 on different topics of folklore are from the pen of Mr. S. C. Mitra, and of the rest, one on "*The Sacred Thread Ceremony*" by Mr. G. V. Acharya was the Presidential Address delivered in February, 1935, one on "*The Ancient Organization of Society in India and in Iran*" was the Presidential Address by Mr. R. P. Masani (delivered in February, 1936), and of the remaining two, one on "*Punishments awarded to the souls of the Dead*" is contributed by Mr. K. A. Padhye and one on "*Popular Beliefs about the Sacred Pippal Tree*" is by Mr. K. A. Padhye.

In the *Annals of the Bhandarkar Oriental Research Institute*, for April and July 1936, Dr. B. C. Law continues his article on "*Countries and Peoples of India*" (as mentioned in ancient Sanskrit Epics and Purāṇas).

In the *Indian Historical Quarterly* for September, 1936, Prof. J. Przyluski contributes an article on "*Uposatha*" or Buddhist sabbath (*A Babylonian Element in Indian Culture*).

In the *Indian Historical Quarterly* for December, 1936, Prof. A. B. Keith discusses "*Aryan Names in Early Asiatic Records*."

In the *Quarterly Journal of the Mythic Society* for July-October, 1936, contains an article on "*The Nature of Folk-lore and Popular Art*" by Dr. A. K. Coomaraswamy. "*A Short Account of the 'Damila'*" by Dr. B. C. Law, "*Dravidic Sandhi*" by L. V. R.

Aiyar, and four articles by S. C. Mitra (*"Sinhlese Accumulation Drolls"*; *"Fire-Walking among the Dusadhs"*; *"Bird-Myths"*, and *"Plant-Myths"*.)

Journal of the Annamalai University, for October, 1936, Messrs S. Subramanian and S. Ramakrishnan contribute an article on the *Growth of India's Population*. The Statistics quoted show that on an average a woman in India gives birth to 4.569 Children in the course of her reproductive period; and the gross reproduction rate for India is 2.20 and the net reproduction rate (minus mortality) is 0.94.

In *The Mimansa Prakash* for December, 1936, besides an article by R. K. on '*The Outline of the Mimāṃsā Śāstra*', there is an article by Mr. P. K. Pendse, on "*The Place of Mimāṃsā in Hindu Law*."

In the *New Review* for November, 1936, Mr. S. Ganga Prakasar contributes an article on the *Radical Relationship between the Dravidian and Indo-European Languages*."

NOTICES OF BOOKS.

Archaeology.

Man Makes Himself. By V. Gordon Childe.
(Watts, 1936). 7s. 6d. *net.*

This very interesting volume on the progress of human culture from the earliest times down to the commencement of the modern historical period will be welcome not only to the general reader but also to the student of archaeology and history. For the benefit of the general reader, technical terms and outlandish names are avoided in the book, details are not entered into, and all dates are given in round figures. Yet the data of archaeology and ancient history are set forth as accurately as possible under the limitations of a popular handbook. The author endeavours to show that notwithstanding occasional set-backs in progress and various ups and downs, on a long view and from an impersonal scientific stand-point, the course of human history from the earliest times onwards may still justify a belief in progress, although since the last great European War and subsequent crises which undermined the economic foundations of Western civilization doubts as to the reality of "progress" are widely entertained. The author gives a vivid account of the manner in which successive industrial and economic revolutions commencing from the "Neolithic Revolution" reacted upon man's attitude towards Nature and promoted the growth of institutions, science and literature,—of civilization as currently understood. In the

course of its history, society builds up traditional rules of behaviour and a stock of practical sciences; and it is the social traditions shaped by the community's history that determine the general behaviour of the society's members. As man makes the traditions, and tradition, in its turn, by circumscribing his behaviour within certain bounds, makes the man, it may be truly said, "Man makes himself."

Anthropology and Ethnology.

The Science of Social Development. *A Study in Anthropology.* By F. N. Brook. (Watts & Co., 1936). 12s. 6d. net.

In this volume the author has attempted to present an account of what he regards as the probable course of the economic and social development of the human race. In the orthodox style of the old evolutionary school the author divides human progress into five main epochs which he names, after Man's primary means of subsistence, as (1) Gathering, (2) Hunting, (3) Pastoral, (4) Agricultural, and (5) Industrial. These again are sub-divided into lesser periods termed respectively Lower and Upper, the Lower being the earlier in point of time. Each of the epochs is sought to be correlated with one or more of a series of marriage types. Though some of the author's inferences and much of his general conclusions might no longer commend themselves to most anthropologists, the volume before us must have involved considerable industry in its compilation.

Leaves from the Jungle-Life in a Gond Village.
By Vernier Elwin. (John Murray, 1936) 9s. net.

This interesting volume is not, properly speaking, an ethnological book, but is a day-to-day record of the author's life among the aboriginal Gonds during the years 1932-34 in a village in the Central Provinces where he has built up a social service league designated the "Gond Seva Maṇḍal" much like the "Bhil Seva Maṇḍal" in the Bombay Presidency started at Dohad (Khandesh Division) by Mr. A. V. Thakkar. The ethnologist's interest in this book lies in the intimate glimpses that it gives into Indian aboriginal life from the inside, the joys and sorrows, the privations and persecutions from which the Gonds suffer, their quaint customs and habits, and certain weird beliefs and superstitions. Thus, the procedure adopted by a Gond couple to secure divorce is, we are told, the following: "The two parties appear before the elders of the village, and break an earthen-pot (which presumably symbolizes domestic happiness) and then snap a piece of straw in half, and all is over." The Gond's custom of entering into life-long sworn friendship is thus described:—"Gonds are a very romantic people. Gond society is bound together by various kinds of friendships, each with its proper name. These are much more enduring than their marriages. There is the *Bajli* at the bottom of the scale, then the *Sakhi* (the soul-mate), the *Jawara* (a David and Jonathan type of friendship), the *Mahāprasād* and the *Gangājal* (unique and life-long friends)," etc, etc. A detailed account

of the ceremonies attending such friendship which the author himself had formally entered into with two Gonds is given. Referring to the short beds of the Gonds, the author writes:—"On asking why it is that what the Gonds call beds are made so short, I am told that it is to prevent evil spirits sitting on the end and looking at you." Referring to the philosophy of life which enables the Gonds to face poverty and disease, frustration and disaster, the oppressor's wrongs and Nature's ills, our author says:—"This Mud-hut philosophy bids us not to demand too much from life, not to set too much store on things, not even to expect too much from the immortal gods, but to love most where love will be returned, in the charmed family circle, in the friends that will stand by you till death. A gay freedom of spirit is the most precious of possessions, and simplicity of heart the greatest treasure man or woman knows." The book breathes deep brotherly love and a spirit of devoted service towards these younger brethren of Indian humanity. Referring to the humane service which the author with his small band of followers is rendering to the Gonds, M. Romain Rolland, in his Foreword to the volume, writes as follows:—"At a stage when the civilized barbarism of the white races is triumphing, it is good and reassuring to think of this European and his friend whose thought and action are worthy of the human and Christian ideals which they revere. In Africa, Albert Schweitzer, the philosopher; in India, Verrier Elwin, the poet."

The Hero : A Study in Tradition, Myth and Drama. By Lord Raglan. (Methuen, 1936). 10s. 6d. *net.*

In this volume, the learned author after a wide survey of Heroes of Tradition, Myth, and Drama, comes to the conclusion that "the ritual drama has played a highly important part in the religious and social life of many peoples, a part compared with which that played by history has been inconsiderable, and that the connection between the ritual drama and the traditional narrative is often demonstrable." Though conceding that the traditional narrative may not always be connected with the ritual drama, Lord Raglan thinks that he has shown that "this connection is everywhere at least probable, whereas there is nowhere any valid evidence to connect the traditional narrative with historical fact." Though the assumption of the absence of historical foundation for all heroes of traditions and Sagas may be doubted, this well-thought-out and well-written volume supplies serious food for reflection.

The Earth-Goddess : A Study in Native Farming on the West African Coast. By G. Howard Jones (Longmans, Green & Co., 1936).

In this volume the author, who has had long practical experience of the country and a sympathetic appreciation of the native mind traces the history and development of agriculture on the West Coast of Africa from a primitive shifting cultivation to subsistence farming by small growers who rely increasingly upon

cash crops for export, and discusses certain specific ways for improving and developing this agriculture. This study leads the author to other and wider considerations which, although not properly agricultural, yet have an important indirect bearing upon agriculture and should not therefore be neglected. The author begins by saying that "every agriculture is the resultant of three components which themselves vary greatly from one country to another," and that the variations in each component in different countries are responsible for their differences in agriculture. These three components are the *economic*, the *social*, and the *scientific*. "In English agriculture, the *economic* theme is predominant and peculiar, the *scientific* theme is moderately developed and the *social* theme is not very carefully regarded. Danish agriculture is sharply contrasted for it is highly developed *socially*, but this is so well balanced *economically* and *scientifically* that it gives one of the best agricultures in the world. Indian agriculture has a fairly well-developed *science* and a primitive *economic* theme, but the *social* theme is so excessively emphasised that it cramps the style and harmony of the whole fugue. So far as West African agriculture is concerned, from economic and scientific points view, its primitive methods have indeed met the requirements of the West Africans in their simple life of the past, but the same low standard of export crops is not good enough to satisfy the insistent demands of an active civilised world."

The exploration of virgin natural resources, low costs of production and comparative freedom from competition, have been of the greatest importance in building up West Coast prosperity in recent years.

The following religious or 'spiritual' factors enter into the West African's ideas of land-holding.

The Negro is intensely religious and believes absolutely that the spirits of departed ancestors 'haunt' the scenes of their earthly labour, and so the Negro has an ever-present veneration and love for it which surpasses even the sentimental attachment of the European landholder for his ancestral acres. And, further, "the land itself is sacred because it is inextricably connected with their second great deity, the Earth-Goddess." This, as our author rightly says, points to the necessity of adhering very closely to the indigenous systems of land tenure even in some of their small details, although "they may very probably need to be modified and further evolved from time to time as a natural reply and re-adjustment to rapidly altering conditions of life." Land tenure and the land laws of the West Coast, the author points out, reflect the native genius in political organisation, which is democracy. Though the great chiefs on the West Coast at first appear to be absolute rulers, in reality they are not autocrats but rather representatives who, like the great King of Ashanti, are always held very much in check by their hereditary councillors, and still more by the clan system, "by reason of which no single free man, woman, or child, could ever be considered or treated as a separate entity from his or her clan." The author's account of agriculture on the West Coast of Africa as also his account of the military origin of English landlordism, as a temporary compromise in times which have now altered, and the untenability of the system under present conditions is very interesting and instructive.

Women in Rig Veda. By Bhagwat Saran Upadhyaya M.A. With a Foreword by V. N. Mehta. I.C.S. (Lucknow, 1933).

The author deserves high commendation for this very interesting and illuminating piece of research. And we eagerly look forward to his future essays of this series in which he promises to study the position of Indian woman in successive periods of ancient Indian History. As the author shows by quoting chapter and verse, in no country and in no age was woman held in greater honour and wielded greater power in the family and in society than in Rigvedic India. As a daughter and sister she was cherished with great fondness. The maiden was given away with lavish presents "to her freely chosen match in marriage when approved by the parents, or, in their absence, by the brother." As a wife she was her husband's "comrade in life, her *sakhi* (शखी), with the same range of knowledge and interests, mature in body, in mind and understanding, able to enter into a purposeful union on equal terms with a man of equal status, as life partner of her own fond choice, both dedicating their life work to service to the Divine Lord of the universe, both ready to fulfil the purpose of married life." Monogamy was the rule. "The Rigvedic woman was at her greatest in her motherhood. The mother was strong and brave, noble and virtuous, and at the same time full of the milk of motherly tenderness." Rigvedic society gave its women enough liberty of movement, and adequate opportunities for acquiring knowledge. There were women great in learning among them like Ghoshā, Lopāmudra, Apalā, Suryā, and others great in war like Mudgalinī

and the warrior wife of king Khela. At the same time they were as great composers of hymns as the male Rishis. They had a great insight into the fine arts, and were well versed in music and dancing. The daughter had a share in her father's property. The morality of Rigvedic women was impeccable. The daughter had a share in her father's property.

The only shadow in the picture appears to be that in a few instances a gambling husband appears to have staked his wife in the dicing hall, and on his defeat, the wife became the property of the winner of the game. Again, there is a solitary instance in the Rigveda (viii, 19, 36) of female slaves, but it is doubtful if it refers to Āryan women at all. On the whole, the Rigvedic age saw the zenith of the power, dignity and honour, love and regard enjoyed by the Āryan woman.

The Sociology of Population, with special reference to Optimum, Standard of Living and Progress. A study in Societal Relativities. By Benoy Kumar Sarkar (M. M. Ray-Chawnhury & Co. Calcutta. 1936). Rs 3.

This is a valuable contribution to the study of Indian Sociology. Prof. Sarkar has lucidly exposed the hollowness and unscientific nature of certain widely current definitions, conceptions and doctrines relating to population sociology, such as the conventional conceptions about optimum, demographic density, over-population, birth control, and standard of living. The author cites evidence to show that ur-

banization cannot be correlated either with density or with industrialization. For instance, "Bombay with 'relatively low' density is highest in urbanization, whereas Bengal with 'very high' density is 'relatively low' in the same regard. The U. P. and Bihar-Orissa are at par in density but in urbanization the former is 'high' and the latter 'very low,' and so on. Again, in point of capitalism and industrialization, Bombay and Bengal are almost at par, but the contrast between them in urbanism is immense. As the author says, the standard of living in India has, if anything, been improving,—no matter how slightly and how partially," "in the *mileu* of a study on the standard of living *vis-a-vis* population it would not be correct to describe India as a purely agricultural sub-continent and to forecast her future sustaining power exclusively on the strength of the mechanical and biological progress in agriculture; slowly but steadily India has been growing into an industrial region also." In the last twenty years the increase in the production of cotton piece-goods in Indian mills was 153 per cent; and almost the whole of the sugar that India used to import from Jawa is now being produced in Indians mills "The spirit of Tata is abroad and Tataism has come to stay, the 'tonic of machinery' has commenced functioning in no unmistakable manner." Capital too has been steadily increasing. Thus postal Savings Bank deposits increased from 229 millions in 1920 to 434 millions in 1932, cash certificates from 84 millions in 1932 to 384 millions in 1930.

Indian statistical data lead to the conclusion that neither an increase nor a decrease in the number of population is necessarily a cause of diminu-

tion of wealth, income or welfare. "The contribution to the culture and civilization of mankind, the increase in economic and military efficiency, the creation of spiritual values and so forth are not the functions of mere numbers," although "civilization has, in general, advanced along with the numerical growth in population." An examination of the dynamics of life or of the forces that serve to transform and reconstruct the races, classes, castes, and other groups ought to furnish the fundamental logic behind all discussions bearing on the nature of decline and progress." Neither in Bengal nor elsewhere can the rise of the alleged lower races or classes or castes be treated as either uneugenic or a regression from the point of view of culture as a whole. The present ascendancy in India of these 'lower' races, castes, or classes "is but continuing the millenium long tradition of Indian culture-history, namely, miscegenation, blood-fusion, race-mixture, Hinduization of the non-Hindu, Indianization of the extra-Indian, and so forth" "The resulting class-consciousness has been proving to be a powerful factor in social betterment and human welfare."

The author then touches upon the new classes (including even the 'domiciled Santals,') and creative forces in Bengali society, who have each been contributing to the material and moral strength and economic and cultural expansion of Bengal. We do not know, however, about the accuracy of the author's statement that "the physical and physiognomical features of the Bengali people who are playing an active part in contemporary life are to a certain extent

different from those of their fathers and grand-fathers." But we are in substantial agreement with our author that "as a 'moral' person, that is, as one who as a free agent discharges the duty of his life in regard to himself, his family and his neighbours, the lawyer, doctor, or the professor is not necessarily superior to the *chāsi*, *coolie*, *majur*, *mistri*, and all other manual workers," that "the illiterate is not a person who deserves to be differentiated from the so-called educated as an intellectual and moral being," and that present-day "Bramhanocracy will have to be oriented to a new order of social facts and developmets."

Finally, referring to the contributions of modern India to spirituality, moral life and religions experience, Prof. Sarkar refers to the teachings of Ram Krishna Paramhamsa, and his great disciple Swami Vivekananda who forcibly preached the cult of Sakti-yoga or 'human energism,' and laid special stress on the awakening of personality and individuality. Besides its general interest for all students of Sociology and Economics, this book will prove specially interesting and stimulating to Indian students. There is yet a vast field for research into the vital problems of population, particularly in this country, and it is expected Indian students will be attracted by teachers like Dr. Sarkar to this very fascinating and fruitful study.

The dAvancement of Science, 1936. (British Association, London). 3s. 6d.

As usual this annual volume of Presidential Addresses to the meetings of the British Association

(1936) contains papers of first-rate importance relating to different departments of science. Among these addresses those of most immediate and special interest to the student of Man are those delivered by the Presidents of the Anthropology (Miss D. A. E. Garrod, on "The Upper Palæolithic in the Light of Recent Discovery"), Psychology (A. W. Wolters, "The Patterns of Experience"), Zoology (Dr. J. A. Huxley, "Natural Selection and Evolutionary Progress"), and Geology (Prof. H. L. Hawkins, Palæontology and Humanity") sections.

Economics.

Chile Land and Society. By G. M. McBride. With a Foreword by Don Carlos Davila. (*American Geographical Society*, New York, 1936).

This is an admirable scientific study of the land system of Chile. As the former President of the Republic of Chile says in his Foreword to the book, "To say that this is the most complete work that has so far been written on the subject would be to give but little recognition to the penetrating analysis, scientific research, personal erudition, and sympathetic and novel approach of the author." The author has with intimate knowledge and sympathy and masterly skill analyzed the distinctly agrarian back-ground of Chile's social structure, history and its influence on Chilean life. It is a country "with the social organization of Spain; a twentieth-century people still preserving a feudal society; a republic based on the equality of man, yet with a blue-blood aristocracy and a servile

class as distinctly separated as in any of the monarchies of the old World." These conditions have unfortunately some parallels, though on a miniature scale, in certain backward parts of India. The *encomienda* system which, when introduced in Chile, was a mere right to exact service in lieu of tribute came, in actual practice in Spanish America, to be a form of serfdom. The result was that most of the land on which the *encomienda* Indians lived passed into the hands of the Spaniards; and the system, contrary to its original purpose, came to represent a virtual acquisition of the lands. The Spanish colonists, in order to assure themselves of a permanent and dependable supply of labour brought about a gradual transformation in the nature of the institution. The Indians were reduced to the necessity of rendering free labour for the *encomendero*, practically due to the crown. In this deplorable condition of the relations between land and labour, the Spanish king was finally prevailed upon to abolish the entire system of *encomiendas* as in all the American colonies, and in 1634 an ordinance was enacted in Chile declaring the Indian *encomiendas* completely free of obligation to render personal service and subject only to the obligation of paying a small yearly tribute *per head* in the shape of products of their own fields and flocks; but this was of little effect, for things remained in the same condition as before. Even the final abolition of all *encomiendas* by a royal *cédula* in 1721 could not be put into full effect before 1791. This too brought slight change in conditions. The relationship of Master and Man which had grown up during the several centuries in which the *encomienda* had continued to mould Chile

an society was not destroyed. The *encomendaro* disappeared but the *hacendado* had already taken his place. The *Indio* (Red Indian), too, had fled back to the forests or merged by intermarriage with his conquerors, and gave place to the *inquilino*, a mestizo labourer, bound by contract or custom to the soil of the great rural properties (*hacienda*) that the invading race had carved out of the lands of his Indian ancestors. The *hacienda*, outgrowth of both the *encomienda* and the land-grants of the early days, had become both a territorial and a social unit, consisting of land and labourers attached to that land. It became the dominant social and economic institution of the country, and about it was organized the entire life of the country. Independence, while it freed the colony from Spain, did not emancipate the *inquilinos* from their virtual serfdom, nor dethrone the *hacendado* from his position of lordship in the nation. Even today, in spite of a somewhat accelerated process of disintegration in the large holdings the *hacienda* continues to be the most characteristic feature in Chile's agricultural organization, as also in the entire social structure of the nation. This situation has been gradually changing within the last 25 or 30 years. A strong movement of the labouring classes has set in against the conservative land-owners who have been controlling the government since the foundation of the republic. The landless lower class is demanding a wider distribution of the nation's wealth, particularly its wealth in land. The nation as a whole is seeking a solution for this important problem in its economic, social, and political aspects. The author justly observes, "An agency of

conquest, such as the *hacienda* with its monopolization of the land by descendants from one of its original elements and its semi-feudal organization based on the superiority of the other has been out-grown." As a matter of self-preservation, if for no other reason, the *hacienda*-owning class itself, should advocate, as a few of them are actually doing, some form of substantial agrarian reform. A well-known Chilean economist, Keller, writes: "The Chilean landholders are face to face with the alternative of giving a part of their lands voluntarily and without compensation, or losing them entirely." Dr. McBride adds, "Recognition of this situation led to the adoption of the provision of the Chilean Constitution of 1925 establishing the State's right to expropriate land on the basis of national necessity; it has influenced President Alessandari to urge the broader extension of the *colonias agrícolas*, by expropriation if necessary, and has brought a strong minority in the Congress to support the far-reaching agrarian program." The author concludes his analysis of Chilean agrarian conditions as follows:—"Altered racial, social, and economic conditions in Chile and in the world at large require a modification of the social organization. The passing of the dominance of the *hacienda* system, though fraught with hardship and turmoil, means progress towards a better and more united Chile. It means fuller utilization of natural resources, higher standards of living for the mass of the people, greater enlightenment over the nation as a whole, more genuine freedom, and more complete harmony among the several elements of the population." With ex-President Don Carlos Davila, we may expect that the Chilean

"Upper class will eventually meet the present situation with intelligence, and equity."

History.

Prehistoric Ancient and Hindu India. By R. D. Banerji. With a Foreword by Donald A. Mackenzie. (Blackie and Son, India) 1934. Rs. 3 as. 8.

This is an excellent and up-to-date history of India, from prehistoric times down to the Muhammadan conquest of Northern India. In about three hundred pages, the eminent author, to whom the world really owes the discovery of Sind Valley civilization, has given a concise history of pre-historic, ancient, and medieval India. Though we are not certain about the accuracy of such statements as that the first 'Austrie' immigrants into India came "from the north-east," (pp. 7 and 9), the book appears to be generally free from certain inaccuracies which we detect in most text-books of Indian history. It is unfortunate that the learned author's labours were cut off prematurely by the hand of death, and he did not live to write a larger and fuller history of ancient India. The book will be an excellent hand-book for our College-students, as well as for teachers of history in our High and Middle English schools.

Hindu Civilization. By Radhakumud Mookerji (Longmans, Green, 1936.) 15s. *net*.

This up-to-date account of Hindu Civilization

from the earliest times down to the establishment of the Maurya Empire is the best work of its kind hitherto published. Compiled mostly from original sources with due emphasis on the Indian point of view, the book bids fair to remain for long a standard authority on Indian history of the period covered by it. Differing from the generality of European writers on Indian History and their Indian followers, the author is inclined to think that the Rigvedic Indians were contemporaries of the 'non-Aryan' founders of the Indus Valley culture. "On a modest computation," says our author, "we should come to 2500 B. C., as the time of the Rigveda." We eagerly look forward to future volumes from the pen of the learned author, carrying the narrative of Indian History down to more recent times.

Linguistics.

Studies in Dravidian Philology. By K. Ramakrishnaiah. (University of Madras, 1935). Rs 2 or 3s.

All students of Indian Philology will welcome this scholarly work. In the first part of the book, the learned author states the Dravidian problem, and traces the history of the development of Dravidian speech through contact with Aryan speech. By a comparative study of the basic root-material common to the Dravidian group of languages, the author attempts not only to determine the nature and development of the relationship which these languages bear to one another and to the other languages of the country, but also to trace the history and methods of

grammatical formation in them. And the author's research appears to have borne ample fruit. It reveals how these Dravidian languages started from a common root-language and gradually developed grammatical forms of expression in accordance with the expanding necessities and developing ideas of the speakers of that language, by following the principle of root-agglutination. This has resulted in verbal and nominal inflexions in these languages. As for the word material, it is only natural that a not inconsiderable proportion should have been borrowed from their Aryan neighbours and a very small proportion from others, and "the nature, extent and form of the borrowed material in the different languages of the Dravidian group depend more upon the time, intensity and mode of contact between the peoples speaking those languages than on anything else, and one language of a group may be affected more than another by the contact in such a way as to create an impression that the particular language belongs to another group altogether." Thus, "Telugu has been influenced by Prakrit and Sanskrit to such an extent as to incline some to mistake it for a mere derivative of Sanskrit or Prakrit." After tracing the development of verbal and nominal inflexions in the Dravidian languages, the author investigates the nature and formation of derivative nouns and verbal derivatives. This investigation, too, reveals how the principle of agglutination has been at work even from the earliest stages of the growth of Dravidian speech when the primitive Dravidian expressed his ideas in the language of roots, and all Dravidian words now classified variously as nouns, verbs,

adjectives, *etc.*, have developed on the principle of root agglutination from the original primary roots of the primitive parent language of the Dravidians, and the Dravidian languages have throughout followed a method of their own in their development, keeping close to the principle of agglutination.

This is undoubtedly a very valuable contribution to Indian Philology.



Am-y.

